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Workbook

FEMA 29
October 1982

A Resource Workbook

Survive Winter

Through Self Help and Helping Others

Federal Emergency Management Agency
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

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Survive Winter

Through Self Help and Helping Others

Federal Emergency Management Agency / National Oceanic and Atmospheric Administration · U.S. Department of Commerce

Dear Campaign Coordinator:

Are you aware that 41 percent more people died from excessive cold in the last three decades than from hurricanes, tornadoes, and floods combined? The statistics we gathered on winter deaths and injuries show that the problem is more severe than many of us may realize.

FEMA has developed the Survive Winter Workbook to help you design and run an awareness campaign in your community to prevent needless loss and hardship. A winter survival campaign can alert those most vulnerable -- the elderly, handicapped, and poor -- to what hazards they face and where they can go for help. The campaign focuses on self-help at home and on what can be done to help others survive the physical and economic hardships of winter. Emphasis is also placed on children and how they can participate in winter preparedness activities.

This year's materials are designed to supplement your community's resources and help you reach your audience in the most cost-effective way. Some materials are available in bulk from the authoring organizations. In addition, art is designed so you can use your own logo or the name of your sponsor. Local sponsors should be sought to help get the word out -- for example, local businesses, senior citizen's organizations, public service agencies, and other are often willing to sponsor such activities as a demonstration of their commitment to community safety.

A harsh winter, combined with tough economic times, can lead to hardships for many people in your community. In areas with mild winters, a season colder than usual can often cause more problems for the population than in those areas where people are accustomed to severe winter weather. We can't change the weather, but we can affect its outcome.

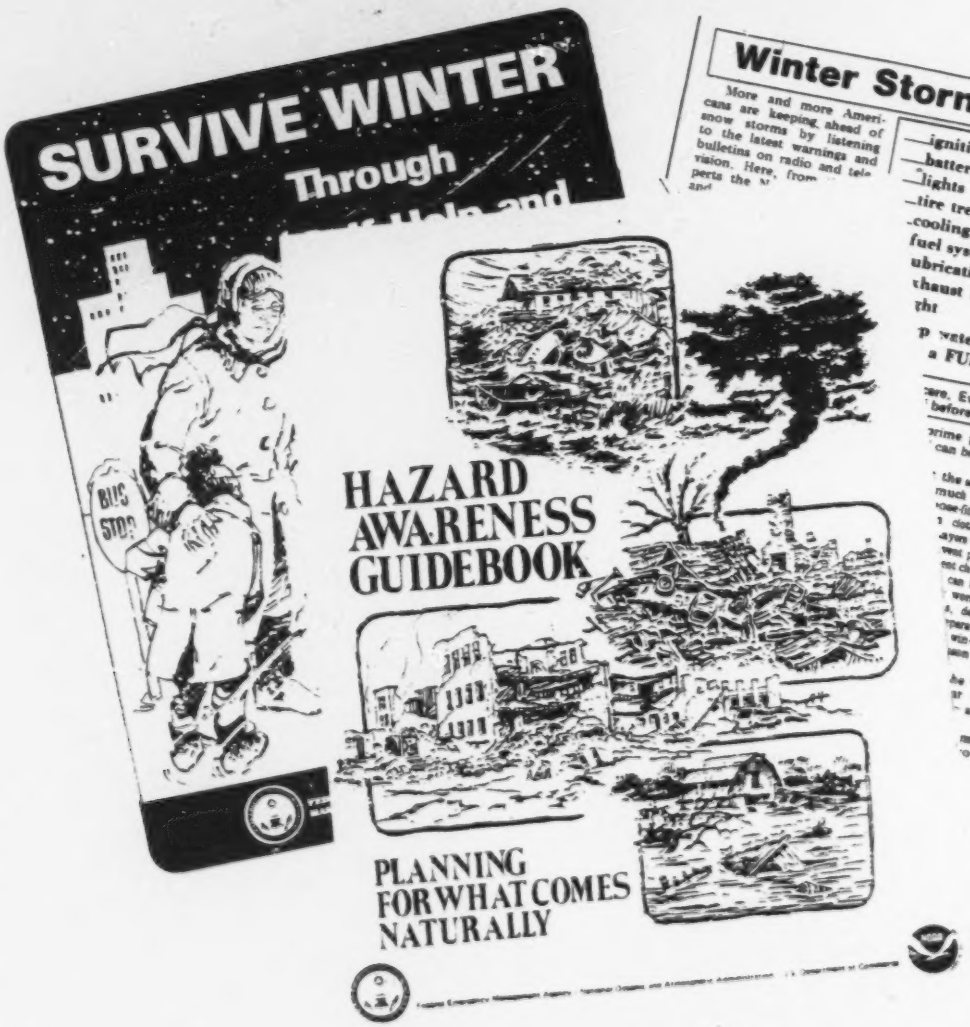
Successful programs conducted in areas throughout the United States will be documented in the Planners Packet and provided through a supplement to the Workbook. If you have a program that has helped your community, or know of one in a neighboring community, please let us know so that we can add it to the supplement and share your program with others.

Office of Public Affairs
Federal Emergency Management Agency

READEX FICHE

I. PLANNERS PACKET

- **Hazard Awareness Guidebook**
- **Community Success Stories**



Winter Storm Safety Rules

More and more Ameri-
cans are keeping ahead of
snow storms by listening
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bulletins on radio and tele-
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—brakes perfectly adjusted
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—defroster
—snow tires installed
—chains
—antifreeze
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before winter storms strike.

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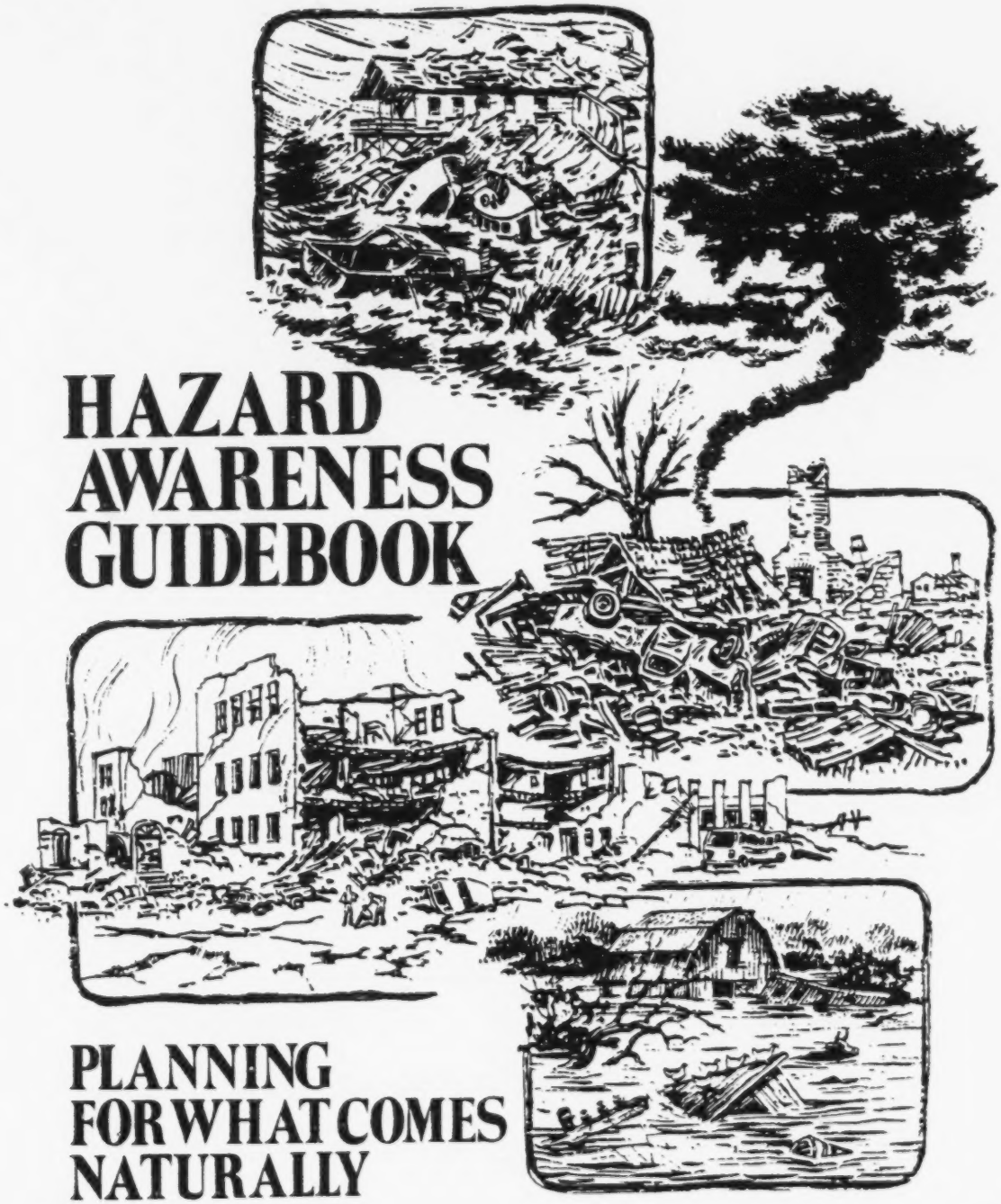
• If the storm exceeds or even tests your limita-tions, seek refuge immediately.
• Plan your travel and select primary and alternate routes.
• Check latest weather information on your radio.
• Try not to travel alone.
• Travel in convoy with another vehicle, if possible.
• Always fill gasoline tank before entering open country, even for short distance.
• Drive carefully, defensively.

Winter travel by automobile is serious business, to take your travel seriously.

PLANNERS PACKET

This Packet is designed to help you plan and organize a successful awareness campaign in your community. A Hazard Awareness Guide offers information on how to identify and reach your target audience, how to utilize the media and other local resources, and planning and evaluation techniques.

In a supplement, the second portion of this section will document successful programs in communities throughout the country. These "success" stories are being compiled now and will cover a wide variety of community types and sizes. If you have a program that has helped your community, or know of one in a neighboring community, let us know so we can include it in this and subsequent supplements. Call us at (202) 287-0300.



HAZARD AWARENESS GUIDEBOOK

PLANNING FOR WHAT COMES NATURALLY

Federal Emergency Management Agency / National Oceanic and Atmospheric Administration · U.S. Department of Commerce

HAZARD AWARENESS GUIDEBOOK:

PLANNING FOR WHAT COMES NATURALLY

Prepared by:

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TEXAS COASTAL AND MARINE COUNCIL
Austin, Texas
October 1979

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Additional copies of this publication are available from the

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Hurricane Awareness Program

HURRICANE AWARENESS

A Public Service Program By The
Governor's Division of Disaster Emergency Services
Texas Catastrophe Property Insurance Association
Texas Coastal and Marine Council

April 1980

ACKNOWLEDGMENTS

Comments and conclusions of participants in the National Hazard Awareness Workshop, March 22 and 23, 1979, provided the basic material for this Guidebook. Additional material has been collected from relevant research and personal contacts. Final suggestions on how to conduct a natural hazard awareness program or information campaign have been drawn from all of the above.

Gilbert F. White, Director of Natural Hazards Research and Applications Information Center (NHRAIC), University of Colorado, Boulder, provided the initial spark for conducting the Workshop and for this publication. His steady encouragement and wise thoughts were vital to the success of the effort. Susan Tubbesing of NHRAIC deserves the warmest of accolades for her patience and hard work in the organization of the Workshop and for her good advice during preparation of the Guidebook. Joe C. Moseley, former Director of the Texas Coastal and Marine Council (TCMC), was also instrumental in the early formulation of the Workshop; and Howard T. Lee, current Director of TCMC, provided much-needed support during all stages.

Funding for the Workshop and the Guidebook was provided by the National Oceanic & Atmospheric Administration (NOAA). Additional assistance with the Workshop was given by the Sea Grant Program Office, Texas A&M University. Many thanks go to Richard Foster of NOAA, Coastal Zone Management, and Willis H. Clark, Texas A&M University, for making this support available. Our appreciation also goes to Allen Martin of Texas A&M for his aid in coordinating the Workshop and to Burrel Montz and Joanna Regulska of NHRAIC for their assistance with the Workshop activities.

Many reviewers willingly gave of their time to comment on the final draft of the Guidebook, and we appreciate their contributions. Jenny Aldridge, TCMC, deserves a grateful thanks for her aid in final preparation of the Guidebook as do Maryann Kroll, TCMC, and Elizabeth Sterling for sharing the typing responsibilities. Credit for the excellent job with graphics and artwork goes to Jack Wilson of The Art Studio.

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HAZARD AWARENESS GUIDEBOOK
PLANNING FOR WHAT COMES NATURALLY

INTRODUCTION

Increased awareness of natural hazards on the part of our citizens is essential if property losses and human suffering from natural disasters are to be reduced. Many programs to raise hazard awareness have been initiated throughout the country with varying degrees of success. It is advantageous to review these experiences and recent research on public information raising programs. This Guidebook will help those who are currently involved in planning programs to improve the public awareness of threats from nature.

The Guidebook grows out of a national Hazard Awareness Workshop held in Corpus Christi, Texas, March 22 and 23, 1979. The goal of the sponsors of the Workshop, Texas Coastal and Marine Council and Natural Hazards Research and Applications Information Center, Boulder, Colorado*, was to provide a setting for exchange of information among those involved in communicating natural hazard information to the public. From this interchange of information, it was hoped to provide some guidelines for future awareness efforts concerned with earthquakes, hurricanes, floods, tornadoes, or the other natural hazards with which people must learn to cope.

It was obvious during the workshop that we do not have all the answers necessary to initiate, conduct, and evaluate awareness programs, but we can draw on a number of common experiences to produce an outline of elements which need to be considered when putting together a hazard information program. These elements are summarized in the following list of "dos". More complete lists of dos and don'ts are contained within the text.

"Dos" For A Hazard Awareness Program

Carefully define program aims. Whom do you want to reach? What message do you want to convey?

Start your program with simple goals and realistic expectations.

Find out what others have done or are doing in hazard awareness, both in your area and in the nation.

Make your message specific. Let it indicate what constructive action can be taken. Tailor it to your chosen audience.

Repeat and reinforce your message regularly.

Use different types of media to reach different audiences.

Use existing organizations or networks, both in gaining support for your program and in disseminating your message.

Choose the individuals or organizations most likely to have credibility with the target audience.

Use the best available natural hazards data, but have media and public information professionals simplify and adapt the information for public use.

Build in an evaluation of the program, however simple, from the beginning.

GETTING STARTED

Determining The Spark Which Ignites

Dos and Don'ts

DO - Look for a dynamic and concerned individual, in the private or public sector, who has the knowledge, drive, and connections to get an awareness program off the ground.

DO - Try to gain the support and involvement of all concerned parties early in the program formulation.

DON'T - Forget to check local, state or federal legislation which could give impetus to initiating an awareness program.

Who starts a hazard awareness program? Who should get involved in the initial planning efforts? Any individual or organization which identifies the need for such a program and can garner the necessary support provides the spark. The original push might come from the federal, state, or local government level, or from private business, civic organizations, or religious groups. Awareness programs have been initiated by groups as diverse as the Automobile Club of Southern California, Denver's Urban Drainage and Flood Control District, local museums and libraries, civil preparedness agencies (all levels), state or federal agencies concerned with particular hazards (United States Geological Survey, National Weather Service, state Sea Grant programs), local colleges or universities, property insurance companies, and volunteer groups (from the Red Cross to local environmental groups).

Often the initial spark comes from a dynamic, concerned individual who is willing to devote time and energy to getting a hazard awareness program off the ground. This person or organization can sometimes gain support through legislation either already enacted or being considered at the federal or state level. For example, the National Flood Insurance Program has given some impetus to efforts to inform the public and their local officials about the program and flood preparedness efforts in general. Local interests can pick up on these information attempts and tailor them to their own communities. In California, hazard disclosure legislation has been passed requiring that a prospective purchaser of property be informed if that property is located in the area in which active surface faults have been identified. The existence of this legislation can be used to further public awareness of the earthquake hazard.

Sometimes, the legal question of liability for failure to notify those susceptible to different hazards can be the very spark with which to initiate an awareness program. Try to find a sympathetic, concerned legislator or local governing official to lend aid in initiating the awareness program.

Look around for other groups which might have an interest in a public information program and may have more resources than you. Inform other groups of your proposed education efforts and these groups, in turn, could provide support and ignite further interest. The Natural Hazards

*Assistance in funding and conducting the Workshop were also provided by the National Oceanic and Atmospheric Administration and Texas A&M University, Sea Grant Program.

Research and Application Information Center in Boulder serves as a clearinghouse for hazard-related subjects and may be able to establish important contacts for you.**

Setting Goals

Dos and Don'ts

DO - Define the community or area with which you are concerned and determine what sections are at risk to the hazard you are addressing.

DO - Determine what alternative measures are available to lessen the risk and what responses you wish to encourage through your program.

DO - Define your target audiences (social, economic, locational, etc.) and tailor your messages to them.

DO - Be realistic in setting your initial goals.

DON'T - Assume that distributing information will by itself change people's actions.

It is important as a first step to define the risk to the community and examine alternative measures which might alleviate risk. This step does not need highly precise information; your information and risk assessments can be refined later. What is necessary is to understand what section or sections of the community and what kinds of property are at risk. As soon as you identify the risk, you can begin to establish the aims of your awareness program.

Your assessment of the risk might reveal certain situations where increased awareness on the part of officials and/or the public is crucially important. You might discover that in a community which is generally prepared and aware of the risk, certain sections remain highly vulnerable and unaware—a mobile home park in the tornado belt with no tie-down regulations or shelter, or a mountain canyon vulnerable to flash floods where awareness may be low and the warning system inadequate.

As you begin to define the aims of your program, you must decide what behavioral response you want to encourage through your program. Do you hope to encourage response to warnings, purchase of disaster insurance, the construction of homes or businesses to withstand various hazards, relocation of residences out of high-hazard areas, or other worthwhile goals? Your choice could be a combination of the above, but your aims will ultimately determine the content and mode of dissemination of your messages. Determine precisely why increased hazard awareness is necessary or important to your chosen audience, because financial and community support for your program will then be easier to obtain.

Some of your goals will be determined by the nature of the hazard or hazards to which the community is vulnerable. It is much more difficult to initiate and sustain public interest in low probability, high risk hazards such as major earthquakes, or slowly occurring hazards with less immediate evidence of destructive potential such as erosion or subsidence than to achieve an awareness of a more frequent event such as hurricanes and recurring riverine floods. Public education of low probability hazards should be combined with broader programs on public safety, environmental processes or adequate community construction practices and building codes. It is often possible to increase awareness of such events by latching on to efforts to plan for other, more visible, hazards in the community that have already received more attention.

In formulating program goals and approaches, a survey to evaluate public opinion or level of preparedness for a certain hazard can be helpful (see example Appendix A). Be realistic in setting your initial goals and expectations of program results. Start with simple objectives and materials and gather steam as your effort matures. Two sets of goals—long-range and short-range—are recommended. Among the short-range goals would be to communicate to the audience the susceptibility of certain areas to the hazard and then indicate the correct preparedness steps. Long-range goals would include attempting to gain support for stronger building codes and wise use of undeveloped hazard-prone lands.

Your "target" audience may be local government officials, school children*, industry workers, retired persons, or newcomers vs. hazard veteran's vs. fringe veterans (those who "think" they have experienced the worst possible natural disaster). Some of your own background research or that of others may give a better idea which groups most need the information. This need could vary by type of hazard as well as location. The make-up of a community—social, economic, geographic—will play a part in defining the audience approaches to stimulate the desired behavior. Certain populations are generally harder to reach, but may be the most vulnerable, e.g., the non-English speaking, the elderly, the poor. Identifying and working directly with leaders of your selected audience or community may be the most efficient way of targeting information. Simply giving people good information about a hazard does not necessarily change their behavior or stimulate the desired response. People interpret the same information differently. There are many steps between receiving information, making it meaningful in one's personal life, and actually altering one's behavior. For example, a person may see a T.V. spot telling him that the use of automobile seatbelts can save lives, knows that he has a seatbelt in his car, but still not use the seatbelt.

Gathering Resources

Dos and Don'ts

DO - Check with all relevant government entities when attempting to find funding and other support for hazard awareness programs.

DO - Approach local businesses and industry to gain their support. They have an interest in safeguarding the lives and property of their employees and citizens.

DON'T - Forget to include volunteer organizations when seeking resources for your program. Carefully match the skills of each potential contributor to appropriate roles in the program.

Once you have decided to begin a hazard awareness program, where do you obtain the money and resources to get started?

Funding

The few hazard awareness programs actually conducted thus far have tapped as many sources as programs exist.

*Natural Hazards Research and Applications Information Center Institute for Behavioral Science, #6 Campus Box 482, University of Colorado, Boulder, Colorado 80309. (303)492-6818

** See Appendix B for further information on developing a school-based hazard awareness program.

Federal, state and local governmental entities have provided most funds for awareness programs. On the federal level, the Federal Emergency Management Agency (FEMA), National Oceanic and Atmospheric Administration (NOAA), United States Geological Survey (USGS), and the United States Army Corps of Engineers (USCE) are among those which have assisted in the past. On a state level, check your state planning, natural resource, and emergency preparedness agencies. On a local level, check city and regional planning agencies and universities. Water, urban drainage, and other special districts should also be contacted for possible funding assistance.

In general, the more specific and localized informational material is, the more readily it is accepted and utilized. Unfortunately, the availability of funds often travels in the other direction, with the federal level having the most funds for general preparedness materials and the locals having the least for specific materials. However, if the government interest is there, or can be created, cooperation at all levels can ultimately result in the best product. Most important is to get something started, however simple, at whatever level possible.

Support Services

There are many resources which can be tapped to contribute time, skill or services, as well as money to an awareness program. All the government agencies mentioned previously have great amounts of data which would be valuable to instigators of an awareness program. Each state and city government has skilled people (e.g., geologists or planners) who can help prepare risk assessments—probably have maps, and often have slides and photographs. Getting in touch with them early can save time and money in the information gathering stages. Call your city water board and find out who has responsibility for flood control and call the local building inspector's office and talk about building codes for disaster mitigation. A look through the government listings in your phone book and a few phone calls and visits will yield a lot of information and turn up individuals who either have responsibility for hazard awareness or have a genuine personal interest.

In addition to government resources, there are many private and community resources. Insurance agents can be approached to use their contacts to distribute information about hazards and possible protection. Banks and savings and loans can encourage hazard mitigation activities to protect their mortgages and loans. Owners of local businesses and industrial plants may be interested in helping financially with warning systems or in distributing information which would protect their customers and alleviate potential liabilities.

Take advantage of the special skills of concerned citizens. Do not forget to involve and mobilize existing volunteer groups in educating your audience about natural hazards. If they are given accurate information and appropriate roles, volunteer groups or individuals can play a large part in generating hazard awareness. The list of organizations which might become involved is long and varied:

- 4-H Clubs
- Amateur Radio Clubs (RACES-Radio Amateur Civil Emergency Service)
- American Association of Retired Persons
- Girl Scouts
- Boy Scouts
- Sierra Club
- Volunteer Action Centers
- League of Women Voters
- Civic and Business Clubs
- Agricultural and Marine Extension Agents
- Community Colleges and Universities
- Structural Engineering Societies
- Religious Organizations

The Red Cross, although a volunteer agency, plays an official role in disaster preparedness and relief and should also be contacted as a resource and for coordination of efforts.

Remember to consider the ramifications or consequences of accepting the support of a particular group. If the group is controversial or unknown to your target audience, they could do more harm than good. On the other hand, if the right interest group comes aboard, it can often influence government officials, developers, or others to participate and take effective preparedness measures. A network of Voluntary Action Centers coordinating such activities is in place in most states and cities throughout the United States. Headquarters for the Centers is in Washington, D.C.*

Volunteers can aid in localizing and disseminating information through personal contact in their communities. If an awareness program is initiated on a state or federal level, they will provide a way to reach the appropriate people with the necessary messages.

Those who have worked with volunteer organizations in public information programs say that several steps are involved in making their participation effective, including:

- Recruitment
- Orientation
- Training
- Evaluation
- Feedback to the Volunteers
- Recognition of Achievement
- Promotion**

Organizers have also found that it is very important to screen individual volunteers. Most volunteers have special talents and experience to offer and it is important to use these appropriately, matching up needs and skills. A teacher or retired advertising executive would have valuable roles to play in an awareness program if their talents were used in the correct way. Boy or Girl Scouts can deliver brochures or "starving" artists might design great posters for free if allowed to sign them and gain publicity for their work. It is important to let each volunteer, whether individual or organization, know what job is to be undertaken, by whom it is to be done and when it is to be accomplished.

In some instances, solicitation of volunteer observers for aid in determining the timing or possibility of natural disasters also serves to increase general public awareness. An example of this type of public awareness is provided by the use of flood watch volunteers by the National Weather Service on a local or regional basis. These citizens provide valuable monitoring along creeks and rivers during critical periods.

Project Earthquake Watch*** uses volunteers from seismically active regions of California to observe specific changes in animal behavior which some say precedes earthquake occurrence. These volunteer observers are pet owners or people who are around animals for much of the time because of their work or hobby. They are recruited by news releases, radio and TV interviews, direct mail, conferences with farm and animal-related organizations, and contact with federally-supported county volunteer organizations. Potential observers for Project Earthquake Watch are screened by a questionnaire and given a specific set of responsibilities, including immediately reporting any unusual animal behavior over a toll free hotline, and keeping a daily log describing the behavior of their animals. All of the above activities

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*Contact Executive Director, National Center for Voluntary Action, 1214 Sixteenth Street, N.W., Washington, D.C.

**See Peter Ward, Proceedings of Conference IV, The Use of Volunteers In The Earthquake Hazards Reduction Program, February 2-3, 1978. United States Geological Survey, Office of Earthquake Studies, Menlo Park, California 1978.

***For information, contact Leon S. Otis, Project Leader, Project Earthquake Watch, SRI International, Menlo Park, California 94025.

hopefully serve not only to provide valuable information for prediction research, but to increase general public awareness of the earthquake hazard.

It is important to remember in beginning a hazard awareness program to be creative and resourceful in looking for potential sources of funding and community support. Part of good planning is tapping as many sources as possible to contribute money and services to your effort.

PLANNING AND COORDINATION OF YOUR PROGRAM

Early Stages

Dos and Don'ts	
DON'T -	Hesitate to redefine goals and set realistic priorities according to available resources.
DO -	Avoid duplication and obtain ideas for useful materials and approaches by knowing what others have done.
DO -	Determine exact elements or tasks of your program and set dates for completion of each.

Once initial funding and players are established, planning for the best and most efficient use of funds is essential. It may now be necesary to redefine goals and set priorities in terms of available resources. Initial surveys and contacts should have already established a need for the program and perhaps determined the subject matters on which the program should center.

Finding out what others have done is vital in determining the elements of your program. Contact other states, agencies or institutions which might also be preparing awareness materials. You will have already tapped many of these sources in your initial assessment stages (see Gathering Resources). These contacts can aid in avoiding costly duplication of materials and enable more efficient use of your resources. The likelihood of putting out conflicting information is also significantly decreased through coordination.

Determine the exact elements of your program and the steps necessary to implement each stage. A flow chart or time-line chart (see sample, Appendix C) of proposed activities can easily be put together and modified as necessary as implementation of the awareness program proceeds. In the planning process, it is important to: *set forth all elements to be undertaken, by whom they will be done,* and *when they will be accomplished.* A status report sheet (see sample, Appendix D) also allows awareness coordinators to see where they are in their program steps at any one time. It is always smart to start planning one year ahead for the next year's program, since actual production and preparation of materials is time-consuming.

Data Needs

Dos and Don'ts	
DO -	Determine precise data and information which you wish to communicate to your chosen public and locate the best and most accurate source for each type.
DON'T -	Attempt to use information which cannot be transferred into a clearly understandable form.

A basic early step in formulating materials for an awareness program is to search out the best available data and information concerning a particular hazard. Types of data which could be needed include:

- delineation of areas susceptible to the natural hazard under consideration such as earthquakes, mud slides, storm surge, freshwater flooding, erosion, etc.;
- an up-to-date checklist of preparedness measures and safety rules to follow before, during, and after a disaster;
- good photographs or slides showing past damage due to the hazard;
- information on long-term disaster mitigation steps which can be taken to lower future loss of life and property;
- information on road conditions and elevations; and
- current population at-risk figures for vulnerable areas.

Past experience has shown that correct preparedness actions are the easiest information to communicate. The high cost and amount of time spent in obtaining and communicating accurately mapped data is, however, more difficult. Help from federal and state agencies or local colleges is often available to map vulnerability to hazards. Agencies such as United States Geological Survey, United States Corps of Engineers, National Oceanic and Atmospheric Administration, Red Cross, state parks and wildlife departments or planning agencies often have excellent slide and photographic files available for public use. Check all existing sources of information and choose the best for your purposes. A recent publication by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration and U.S. Department of the Interior, Geological Survey gives an *Inventory of Natural Hazards Data Resources in the Federal Government.**

It is vital that the information and data collected is accurate and that its validity is subject to as little questioning as possible by the intended users. Since the credibility of the data is so important, some programs have used historical rather than predictive data whenever possible. A possible drawback to using only historical data is that it could falsely lead receivers of the information to feel that the historical examples depicted the worst possible effects of the hazard.

Development of Materials

Dos and Don'ts	
DO -	Keep it simple, when developing original materials. Have a professional public information specialist and graphic artist translate technical material into a readable and attractive format.
DO -	Structure your message to reach most directly those in your chosen audience and relate it to experiences with which they can identify.

*Available upon request from National Geophysical and Solar-Terrestrial Data Center, NOAA, 3100 Marine Street, Boulder, Colorado 80303.

Dos and Don'ts

DO - Give your audience positive solutions or actions which they can take to reduce their susceptibility to the hazard.

DON'T - Neglect to pre-test approaches or materials to determine their effectiveness.

DO - Sustain your awareness program from year to year and concentrate on improving the quality of your products each year.

Once the initial workplan has been selected, the budget estimated, the target audiences identified and appropriate data gathered, it is time to put together the most effective package of materials possible. This may mean the development of one really good brochure or one television or radio spot, a basic slide show, the holding of a series of public hearings, etc. "Start simple, but start soon," is the best adage to follow at this point. Do not, however, expect to reach all sectors of the population with one medium.

Having identified your target audience and the desired behavorial outcome during your goal setting stage, you now must decide how your message can best be structured to reach your audience within the limits of your available funds and staff. Slide shows may be most effective with one audience, while printed materials may be the approach to use with another. All the above factors must be taken into consideration when tailoring material to the chosen audience. It is particularly important to be sensitive to special needs of your target population: translate materials for significant non-English speaking populations; do not send information to the poor about insuring the contents of their houses for up to $25,000. Such seemingly obvious considerations are often overlooked and can undermine the credibility of the final product.

As mentioned previously, finding out what others have done is most important, not only in data gathering but in actually putting together materials. Copying is the sincerest form of flattery and if something has been done well in another state or city, why re-invent the wheel? Naturally permission should be sought when reproducing materials, and credit given when appropriate. A paper prepared for the Hazard Awareness Workshop by Joanna Regulska provides a discussion of many ongoing awareness programs.**

Assistance in translating technical information into lay or simple language may be required. This step is essential for the best understanding of materials. Often, professional help, perhaps volunteer, may be obtained. Technicians and scientists are usually not the people to accomplish this step. Relating the data to a situation with which a person can identify is helpful. For example:

- Portray the percent of damage reduction to a structure if certain hazard-resistant building techniques are used;
- Give the savings in insurance costs if certain actions are taken;
- Provide graphic representation of earlier losses in a neighborhood.

Develop contacts with and support from professionals in advertising, public relations, or the media. Universities or colleges in local communities are a good source as are the public information officials in the appropriate state or federal agency.

Find and use a good graphics person to do your printed layouts. It is important that the awareness material be easy to read and instantly identifiable. An eye-catching, consistently used logo is a good idea. Basic materials will need an occasional update, but never a complete revision if done correctly the first time around. Utilize the unique expertise of each individual involved in the awareness program (writers, planners, artists, good solicitors of support, etc.) and buy your expertise, if needed.

As discussed earlier, people are more likely to listen to concrete human experiences interwoven with data, rather than to a simple presentation of dry statistics. Also, the more the material can be localized, the more useful it will be. If a citizen can find his/her community, street, or house on a map delineating the flood or earthquake zone, then the information will be more meaningful.

Once you have communicated the problem to your audience, be sure to give them a solution or positive actions which they can take to alleviate their vulnerability. Do not leave them dangling. Instead, explain the benefits to be received from taking certain kinds of actions.

Once is not enough. It has been found that awareness information and emergency warnings must be repeated and reinforced. A sustained program becomes vital in this context—a one-shot blitz will not be adequate. Over-saturation of information may be possible, but this has not yet been proven.

In the long run, it is quality not quantity that will determine the success of various elements of this program. Before you launch a full-scale program, conduct a pre-test of your materials. Advertising and communication departments in local universities may be willing to test program materials as class projects. Be most concerned with how well your material is done, not who gets the credit for it. If you try to turn an awareness program into a promotional campaign for an agency or industry, credibility is lost.

Choosing Your Approach

Dos and Don'ts

DO - Try to determine the most effective means of reaching your chosen audience, but do not rely on only one form of media or approach to reach them.

DO - Keep and update a file of all organizations, publications and individuals who should regularly receive awareness materials.

DO - Use newspapers for long-term education of an audience concerning the nature of an area's susceptibility to natural hazards and to encourage readers to write for further information.

DO - Use short (10, 30, or 60 second) T.V. spots to alert or change your audience's perception of the dangers of, or their susceptibility to, the natural hazard.

DON'T - Expect material developed for radio to have the same impact as visual presentations, but do use it to reach appropriate audiences.

DO - Consider the use of a simple, inexpensive but attractive brochure or poster if you wish to maintain a sustained effort and reach broad segments of the population.

**"Public Awareness Programs for Natural Hazards," is available from the Natural Hazards Research and Applications Information Center, Institute of Behavioral Science, #6, Campus Box 482, University of Colorado, Boulder, Colorado 80303, (303)492-6818, for $2.00 to cover the costs of reproduction and mailing.

What types of materials or approaches can be used in a hazard awareness program and which have been found to be most useful in getting across specific messages to specific publics?

A hazard awareness program is necessary, because most people do not perceive the threat of danger from natural hazards as a real problem. Research has shown that for issues in which an individual feels little real involvement, the message is best communicated by using primarily visual media which require minimal attention and effort to be understood.* For this reason, predisaster, long-term awareness efforts will probably have a better effect through television and newspaper exposure than if presented on the radio. Ultimately, if one form of media is resistant or seems not to produce the desired results, go to other forms. When your campaign begins to get the attention of the public, other media forms will usually pick it up.

Options for getting the word to the people include:

- Television
- Radio
- Newspapers
- Slide Shows
- Films
- Speakers Bureaus
- Local Magazines (chamber of commerce, real estate, etc.)
- National Magazines
- Brochures
- Billboards
- Interpersonal Contacts
- Public School Education

Each of these vary in cost, will require different approaches and will very likely reach different audiences. Whatever option is chosen, a file of names and addresses of persons, organizations, stations or publications which should regularly receive material issued from your program should be maintained and periodically updated.

Mass Media

One overriding rule to keep in mind when deciding to use the mass media—radio, television, and newspapers—is: KNOW YOUR LOCAL MEDIA. It is vitally important to establish some sort of personal communication with the people who make decisions in each media organization—such as the city editor, the news director, or the science and environment reporter. A general media list for press releases, media kits and other materials can be compiled from various sources such as state media directories or local phone directories, but follow-up face-to-face contact is usually necessary to insure product usage.

At a recent Hazards Research Workshop, the editor of the *Boulder Daily Camera* stressed the importance of personal communication. He said that his newspaper receives 400-500 press releases a day and that those which are obviously part of a large mailing (identified by computer labels or bulk permits) are filed in the wastebasket without being opened.

Early in your awareness efforts, you should drop by the local television and radio stations and the newspaper offices, introduce yourself and let them know what you are doing. Then when your organization is doing something that is newsworthy, let your media contact know through press releases or personal phone calls if time permits. Your meeting, rally, or other efforts will then have a better chance of being given consideration. However, do not always count on the media to further your own goals. It is their responsibility to report the news; it is their job to decide which among the many things occurring every day will be covered.

One approach which has had some success is to furnish the media with a feature story which is more entertainment than news. For example, on the anniversary of an historic flood, a story interviewing a senior citizen who experienced the disaster talking about his/her own experiences in the flood and the changes which took place in the community afterward, is useful copy and, if accompanied by old photographs of easily recognizable locations that were inundated, would provide a good opportunity for raising awareness to the risk of future floods and mitigation actions. A moderate earthquake in California might provide a similar chance to feed information to the Salt Lake City papers about earthquake potential in Utah.

In the event of a natural disaster, it will be important for all media to be familiar with the community's emergency preparedness plans. Perhaps a briefing for the media can be arranged through a local emergency planning agency. This would provide a unique opportunity to educate the media not only about their crucial role during times of emergency, but also about the potential role they could play in informing the people of actions that could be taken to lessen the effects of future disasters.

Newspapers. If you can convince newspapers to use your materials they can be a very effective means of reaching certain audiences. Provision of camera-ready preparedness checklists or ads giving an address on how to obtain further information are usually well-received by newspaper editors. Pictures (8x10 black and white glossies) showing past disasters with a brief descriptive text might be used, especially if they are keyed to the state or local area. Timing the release of material can be important. If there is a disaster approaching or if some recent incident has called public attention to the natural hazard with which you are concerned, the media may be eager to receive your materials. Take notice of deadlines for newspapers if you wish your material to be run on a specific day.

A series of articles could also be developed concentrating on various aspects of the hazard—its general characteristics and means of destruction, areas most vulnerable, increased population and development in these areas, current construction practices, effects of the hazard on state or local industry or tourist business, warning techniques and preparedness steps. Quotes from government officials (especially local or regional), industry representatives, hazard experts (meteorologists, geologists, researchers) help to increase the impact of the articles. A professional writer should do this type of series since the style and format can make a significant difference in the acceptability of your message. If you do not have one on your staff, you can hire a free-lance writer or graduate journalism student to do it for you.

At times, you may have to pay for advertising space in large newspapers but small weekly papers or dailies are often glad to get and use interesting material. Currently, sample costs for a quarter page newspaper ad or space can run from $1,400-$1,500 in a big city newspaper, to $390 in a city with around 350,000 people, to as little as $120 in a small-town newspaper. Inserts can be cheaper and more effective than paid advertising space within the paper itself.

Television. One study** has shown that television (especially 10, 30, or 60 second spots) may be the way to change people's opinions on the dangers of various hazards. In addition, spots can give an address where further information (maps, brochures) can be obtained. If recorded spots are to be distributed to T.V. or radio stations, a written script should accompany each one. Another option existing for T.V. includes the use of longer documentary films. Permission can usually be obtained from appropriate government or volunteer agencies (Red Cross) to use film clips from their

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*"Mass Media Usage in Natural Hazards Awareness Efforts," informal paper prepared by Rahul S. Sood, Institute for Communication Research, Stanford University, Stanford, California, March 1979.

**Carlton Ruch and Larry Christensen, "An Assessment of Brochures and Radio and Television Presentations on Hurricane Awareness." *Mass Emergencies*, March (1978). P. 209-216.

products to cut costs in making more regional or localized spots or films. For T.V. use, any message should be especially simple and easily understood. Remember that if used at all, spots and films released for public service T.V. time will more than likely be aired during non-prime time hours (early in the morning or late at night). In the case of weather-related hazards, your local T.V. weatherperson can be a valuable contact for dissemination of information.

Live or taped interviews also provide a good means of presenting hazard information to the public. Again, personal contact is more likely to get your representative on local talk shows. In doing interviews with the news media, whether printed or broadcast, be sure that your spokesperson has all the necessary facts regarding preparedness and hazard characteristics. An information sheet should be provided to the reporter or interviewer in advance to aid them in asking relevant questions.

Provision of camera-ready material, including slides to local T.V. weatherpersons (if the hazard is weather-related) for use during their regular weathercasts has proven to be a successful approach. A script or descriptive text should always accompany each slide.

Paying for T.V. time is expensive and can vary from $25 for non-prime time (7:00 a.m. to 9:00 a.m.), up to $500 prime-time (7:00 p.m. to 10:00 p.m.) for a one-time, 30-second spot. The cost for a 60-second spot will be approximately double that of the 30-second spot. These figures represent average costs only and variation in pricing will occur from station to station. Your budget, aims, and the proposed audience will help you decide if it is worth the money.

Radio. Even though radio may not be the most effective way to reach all sectors of the population, there may be some people for whom it is a useful method, e.g., teenagers or for populations in remote areas. Your options for radio include spots of varying lengths, one-shot interviews with knowledgeable people, or a continuing taped series providing information on a specific hazard. These approaches can be ends in themselves or they can act as stimulants to get people to write or call a specific place for further information.

If these prepared materials are given to stations as public service advertisements, the radio stations are not required to use them. Although they are required to use a certain amount of public service material, they are free to pick and choose which material they put on the air. If they do use your material, it is often not played in the prime listening times (6:00 a.m. to 10:00 a.m., or 3:00 p.m. to 7:00 p.m. for AM stations, or 12:00 noon to 12:00 midnight for FM stations), when the listening audience is higher and more paid advertising is available. Of course, this may not be true if a disaster is imminent, and sometimes, if a hazard is seasonal (hurricane or tornado). Contact with station program directors can be important in determining whether your public service material is used or not.

It may be necessary to pay for your information use. In radio, 30- and 60-second spots, or shorter, are usually preferred and a sample cost for a station serving a city of 350,000 would be $9.00 for a run-of-station (ROS) 30-second spot. ROS spots can be aired by the station anytime they choose, usually, of course, in non-prime time hours. Assurance of prime air time for your spot would cost approximately double, or $18-$20 in this example, for a 30-second spot. A 60-second spot would double the costs for either ROS or prime-time. A station may also have other package deals which could reduce the costs of paid programming.

Radio stations serving smaller areas are often more receptive to use of public service material, since they may have less paid advertising. Purchase of time at stations reaching large audiences and counting on public service time at smaller stations could be one way to handle the situation if your budget permits.

Alternative Approaches

Brochure. A single, simple, but attractive "preparedness and awareness" brochure may be the best first step in increasing the awareness of your target audience. A brochure is usually the least expensive type of material to develop and produce (the Texas Hurricane Awareness Program produced their initial two-color brochure for under 2½¢ per copy) especially if you are attempting to reach a very large audience and have limited funds.

Such a brochure should present the hazard problem in terms with which the intended audience can identify and also provide solutions for them to consider. Solutions might include preparedness steps, evacuation routes, or information on building codes depending on the particular aims or goals which have been set for the program. If possible and applicable, use maps in your brochure with the hazard identified for as localized an area as possible. If your hazard area and audience covers the entire state or nation, budget constraints could limit the detail of your map. The brochures should be primarily pictorial in orientation with a minimum of text and should have an extremely attractive style to encourage people to post them. Succinct, simple preparedness messages could also be included. A good graphic artist should do the design and layout for the brochure.

Distribution of an awareness brochure can be accomplished through a variety of ways. If the brochure is developed through a federal or national entity, then it is usually shipped to regional or state offices whose job it is to get it in the hands of the designated public. If the state disaster emergency services division develops the brochure or offers their cooperation, they can distribute it to local disaster preparedness coordinators who can distribute it in their area. The brochure could also be distributed door-to-door by volunteers, mailed from an advertised single address, or set out in display racks in shopping areas.

Display Booths. Display booths that could be easily set up in shopping areas or civic centers could be used as a relatively cheap tool for communicating awareness information. The displays could use video cassette players, slides or photographs. Simple, graphic messages are most effective. You should include handouts that contain specific suggestions for constructive personal actions.

Public Meetings. Attendance at public meetings to discuss natural hazards will, of course, be difficult to encourage in the early part of your program. A useful approach is to work through civic or volunteer groups that might allow you to take advantage of their regular meetings and present your message. Perhaps a parent/teacher organization of a school in a vulnerable location would welcome a speaker at their monthly meeting. The chamber of commerce might be interested in a discussion of possible liabilities that business might face if customers were exposed to a hazard while on their property. Civic and study clubs are always on the lookout for interesting programs. It would be useful to develop a list of knowledgeable people in each location who would be willing and competent to speak about the hazard at public gatherings. Such a speaker's bureau has been used successfully in the Texas Hurricane Awareness Program through the cooperation of coastal Sea Grant marine extension agents and the National Weather Service. It is very important that the speakers chosen be regarded by the community as having good credibility on the subject of the hazard.

Local publications, chamber of commerce magazines, or real estate publications may also be glad to use your printed material, especially if straight information rather than scare tactics are used. However, personal contacts are usually needed to explain the purpose of your awareness program and the materials which are available for use.

Other Approaches. Some campaigns have found rather unique sources of free distribution of their information. Paper bag companies have been willing to print information about hurricane and tornado safety at no additional cost on bags distributed to grocery stores along the Gulf Coast and in inland tornado-prone areas. The phone company in some parts of the U.S. has printed safety tips in the front pages of phone books, including earthquake preparedness in California and tsunami precautions in Hawaii. The City of Boulder, Colorado, has included messages about the flood plain in its monthly water bills. Remember, whatever approaches you try, always be open for new ideas and new interests.

EVALUATING YOUR PROGRAM

Dos and Don'ts

DO - Determine which program elements are most effective for specific audiences.

DO - Determine if your information is actually changing attitudes and actions.

DON'T - Assume that your target audience has necessarily altered their behavior or attitudes as a result of your program.

DO - Use several different approaches in determining your program's effectiveness.

DO - Make your evaluation a continuing, regular part of your program.

Once your program is underway, it is imperative that you evaluate it. Are you reaching your goals? Are all aspects of the program accomplishing what you intended? If you are using more than one type of approach, you should try to determine which elements are most effective for each of your goals and which elements are reaching each of your target audiences. It is important to test to see if your information is changing attitudes and actions, not just whether or not people are receiving the information. A periodic evaluation will also give you ammunition for encouraging further support of your program.

Some of your goals will be simple to measure. If you are trying to encourage citizen participation in setting up a volunteer flash flood warning network, you will know you are successful when the network is operational. If you wish to encourage the purchase of earthquake insurance, you can check with local insurance companies to see if sales have increased.

One simple technique for getting a rough measure of whether or not anyone is paying attention to your message is to offer more information to those wishing to write or call. The Texas Coastal and Marine Council has done this through T.V., radio, and newspaper ads and has received very good response. The requests for information have helped to determine specific media use of public service materials as well as an estimate of the number of people affected by it. Inclusion of response questionnaire forms in media kits or packages will also give some idea of media use and evaluation of the acceptability of materials. Another technique for determining printed media usage of materials is to maintain a clipping file of newspaper and magazine articles and ads using your awareness material. Note on file cards the newspaper name and date of each use. The circulation number of each newspaper can be noted and then tallied to gain a rough estimate of persons reached by your message.

Of course, these simple measures are not able to give you any indication of the factors at work in the changes that they record. For example, you might find that more people are buying flood insurance, a possible indicator of increased awareness. But how do you know if it is the result of your program or of other factors, such as the mortgage requirement by local banks that susceptible new residences be covered by flood insurance, or publicity about a recent flood in a neighboring community?

More accurate assessment of a program can be obtained by using several different methods such as:

- telephone or mail surveys,
- person to person interviews determining sight recognition of materials, and
- utilization of volunteers for testing various approaches and types of materials used in your program (T.V. spots vs. longer films, fear approach vs. simple listing of preparedness steps).

If you conducted a formal survey in the process of "setting goals," now is the time to conduct a second survey to see if your program has changed people's attitudes or increased their knowledge. Techniques such as the above have been developed for evaluating public information programs, and you might find it worthwhile to hire someone skilled in those techniques to do your evaluation for you. This approach was used by the Texas Coastal and Marine Council and by the Denver Urban Drainage and Flood Control District to test the effects of their public information campaigns. The results and an explanation of the methodologies used are available in published studies.* Samples of evaluation questionnaires for a multi-approach hurricane awareness program and a slide show presentation are given in Appendix E.

If your budget does not initially allow for a full-blown evaluation effort, contact a nearby university professor willing to take on the evaluation as part of a communication or research methodologies class. The final alternative would be to pay someone to develop an evaluation technique for you, or adapt one from a similar program, and then administer the survey using in-house staff, volunteers, or others already involved in your program. This approach is not recommended, since objectivity is important and evaluation results could tend to be biased by those directly involved in the program.

After you have assessed the effectiveness of various elements of your awareness efforts, the results can be used to improve your overall program. This periodic evaluation of your efforts will provide an indication of how your program has changed the hazard response of your target audience, and materials can then be adapted accordingly.

CONCLUSION

The provision of information on natural hazards to those vulnerable to their destruction is a necessary responsbility of informed government officials and private citizens alike. Increasing awareness and providing preparedness alternatives is a more complicated process than might be supposed. Guidelines which have worked in the past have been presented in the preceding discussion and will hopefully serve to make the job easier for those involved in communicating this vital information to the public. Ultimately, for those who are located in hazard-prone areas, it is not *if* they will need this information, but *when*.

*Carlton Ruch and Larry Christensen, "Assessment of Brochures and Radio and Television Presentations on Hurricane Awareness", *Mass Emergencies*, March 1978. Ruch and Christensen, *Hurricane Response Model*, Center for Strategic Technology, Texas A&M University, College Station, Texas (in progress).
Marvin Waterstone, *Hazard Mitigation of Urban Floodplain Residents. Natural Hazard Research Working Paper No. 34*, University of Colorado, Boulder, Colorado, 1978.

SAMPLE PUBLIC QUESTIONNAIRE PRECEDING INSTIGATION OF HURRICANE AWARENESS PROGRAM

Name :

Address :

Age :

Occupation :

1. How long have you lived in a winter storm area?
2. Have you ever experienced a severe blizzard?
    a) Where?
    b) When?
    c) Outcome?
3. Did you consider the possibilities of severe winter storms before you moved here?
4. What are the first two or three things you would do to prepare for a blizzard?
5. Do you feel your home is winterized to weather the storm?
    a) Are you prepared with food and medical supplies?
    b) Do you have a means of emergency transportation?
    c) Are you in touch with neighbors?
6. What numbers would you call in an emergency? Where are they listed?
7. Do you have a radio with batteries and flashlight handy?
8. What is your emergency source of heating?
9. Is your car equipped with emergency provisions and has it been adequately winterized?
10. When it is extremely cold, would you let your faucets drip a little?
11. Do you know what to do in case your pipes freeze?
12. Where would you go for more information on preparedness for winter storms?

SCHOOL-BASED HAZARD AWARENESS

Programs to educate school children on the disaster potential of natural hazards could have long-term payoffs in developing desirable public disaster preparedness and response behavior. By making hazard education a part of the regular curriculum, children will be prepared to consider potential risks in making future decisions on emergency response, construction of homes and location in hazard-prone areas. The success of the 4-H Program in introducing new farming techniques provides an example of the possibility of not only changing the awareness of the children, but also of the children educating their parents in the shorter term.

A comprehensive study has been done for the National Weather Service on the existing weather awareness education programs (specifically hurricane) in U. S. coastal states.* The findings and recommendations from this study are useful for any hazard awareness program which has as one of its goals the effective education of school children. A summary of the findings is contained in the following discussion.

Every state education system is set up differently and this fact must be taken into account when attempting to place hazard awareness and preparedness materials in the schools. Efforts to introduce new materials into the schools should always be coordinated with the appropriate school personnel and curriculum designers.

Preparedness efforts have more chance of being accepted by school systems if they can be introduced within existing courses, e.g., science or social studies. Further, school personnel are more likely to use hazard awareness program materials if they can be approached from a broad rather than a narrow perspective. For example, a unit on general weather education could be taught, relating it to conditions students can observe every day, and then a more specific discussion on hurricanes or tornados can be easily introduced. Earthquake awareness could be taught in a similar manner as part of a larger unit on basic geology. In general, the fifth-sixth and/or junior high level are seen as the best levels for hazard awareness program instruction.

In developing specific school-based materials focus should be placed on the nature of the hazard and its impact on people and property. Students can then develop their own set of reasonable guidelines for hazard response based on their newly acquired knowledge. This approach has been found to be more acceptable to educators than simply providing a list of safety rules. Printed preparedness checklists can be a supplement to this activity and can be taken home by the student for family discussion.

Hazard awareness materials should contain some locally-oriented material in addition to material of general interest for more widespread use. Review of local historical occurrences of hazards can often be an effective teaching tool. Knowledge of school, family, and community preparedness plans can also be acquired by the student at this time. State universities can often aid in the development of educational units through their extension service or education departments.

Any instructional materials prepared for school-based hazard awareness efforts should be economical and primarily self-contained. Quality and acceptability of materials should be reviewed by technical and educational specialists as well as teachers who will use them. Pre- and post-testing in actual classrooms will ensure the effectiveness of the final product.

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*Ira W. Geer, *Increasing Weather Awareness—Hurricanes, An Assessment of School-Based Hurricane Education in the Gulf and Atlantic Coastal States.* Office of Disaster Preparedness, National Weather Service, NOAA, Department of Commerce, Rockville, Maryland. December 1978.

EXAMPLE TIME LINE CHART FOR A WINTER AWARENESS PROGRAM

PROGRAM ELEMENTS	May	June	July	August	September	October	November	December	January
I Preparedness Maps/Brochures									
A Retail Distribution	Display racks ordered	Maps/brochures ordered; Survey cards printed; Cardboard/wire tabletop holders ordered; Sign & labels for holder & window ad drawn up/printers; Determination of local contacts in each area & decision on # visit w/leaflets	Cards ready maps/brochures in headquarters; Sign & labels delivered; Local coord worksheet drawn up & distributed	Racks delivered; Cardboard/wire tabletop holders delivered; Placement of materials & stands		Follow-up & maintenance		Formal evaluation of program	
B Direct Mail				HANDLED FROM MAIN OFFICE					
C Plant/Industry Distribution		Determination of industry contacts and visits with them		Placement of appropriate materials		Follow up & maintenance			
D Labor/Unions		Initial contact with union leaders		Placement of appropriate materials		Follow up & maintenance			
E Civil Defense	Draw up contract w/state CD $5,000	Contact local CD directors	Maps/brochures delivered to state CD						
II Media	May	June	July	August	September	October	November	December	January
A Newspapers		Preparation and reproduction of camera-ready materials; Preparation of press releases feature stories	Distribution; Distribution			New releases			
B T V		Locate and reproduce previously released spots; Produce any new spots	Old spots ready and in hands of T V; New spots ready and in hands of T V			Follow up visit to see if using, etc		Formal evaluation of program	
C Radio		Draft new radio spots; Conduct 5 minute interviews	Record new spots; Edit & distribute; Spots at radio stations			Follow up visit			
III Slide Show/Film	May	June	July	August	September	October	November	December	January
Slide Show		— Selection of slides — Design of slides to be made — to artist; Draft text/format for handout — printers; Make contacts — establish show schedule		Present slide show				Formal evaluation of program	
NOAA Film Hurricane Decision		Film Arrival		Film as back up in place of slide show when appropriate					
DCPA Film		Film Arrival		Film as back up in place of slide show when appropriate					
Red Cross Film		Film Arrival		Film as back up in place of slide show when appropriate					

APPENDIX C

STATUS REPORT OF A SAMPLE WINTER AWARENESS PROGRAM

	Target	Actual	Status	Comments
I. MAPS (cont'd)				
B. Retail Distribution				
C. Plant/Industry Distribution				
1. Industry Contacts & Visits with them				
2. Placement of Materials				
D. Labor/Unions				
1. Initial contact with union leaders				
2. Placement of Materials				
3. Follow-up and Maintenance				
E. Civil Defense				
1. Draw up $5,000 Contract for Funds with State CD				
2. Contact Local Civil Defense Directors				
3. Maps Delivered to State CD				

STATUS REPORT OF A SAMPLE WINTER AWARENESS PROGRAM

	Target	Actual	Status	Comments
II. MEDIA (cont'd)				
C. Radio				
1. New Radio Spots				
a. Draft				
b. Record				
c. To Stations				
2. Radio Interview Series				
a. Conduct				
b. Edit and Distribute				
III. SLIDE SHOW/FILMS				
A. Slide Show				
1. Selection of slides and design of slides to artists				
2. Draft text				
Format for Handout/Printers				
3. Make Contacts — Establish Show Schedule				

STATUS REPORT OF A SAMPLE WINTER AWARENESS PROGRAM

	Target	Actual	Status	Comments
III. SLIDE SHOW&FILMS (cont'd)				
B. Films				
1. Hurricane Decision				
2. Red Cross Film				
3. OCPA Film				

APPENDIX E

WINTER AWARENESS SLIDE SHOW QUESTIONNAIRE

1. Was the material presented in an understandable manner? yes no

2. Will the material just presented help you prepare yourself, your family and your property from a severe winter storm? yes no

3. Did you learn anything NEW about winter storms and how to prepare for them? yes no

4. a) Did the speaker talk loud enough? yes no

   b) Would you suggest another program on this subject next year? yes no

5. a) Have you ever experienced a severe winter storm? yes no

   b) If so, when and where?

   c) Did you suffer any injury or loss of personal property? yes no

6. Additional comments (please be candid).

Signature not necessary,
but would be appreciated. _____

STATE-LOCAL-FEDERAL ROLES IN HAZARD AWARENESS PROGRAMS

Ideally, all hazard awareness campaigns would be formulated and conducted at the local level, so that they could be made as specific and meaningful as possible. Unfortunately, funds, technical expertise, and time to devote to developing awareness efforts may not be available at the community level. Thus, each level of government and the private sector should contribute whatever it can do best to an awareness effort.

The Federal Level

The federal agencies and the research which they support should most appropriately provide:

- general information on each hazard;
- Federal legislation and policy support for awareness and other hazard mitigation efforts;
- technical assistance (delineation and mapping of hazard zones, advice on building standards, floodproofing, etc.);
- basic preparedness advice;
- encouragement of long-term planning with aim to lessening future losses;
- support for good research regarding human attitudes and response to various natural hazards so as to increase efficiency of future awareness programs; and
- survey damages after a disaster for use in refining future preparedness efforts.

Discussion on the role of the federal level has also posed some questions: Should the "feds" be imposing their beliefs on what attitude people "should" have in regard to natural hazards? How is federal policy (read $) encouraging possibly inappropriate responses to natural hazards (e.g., rebuilding extremely hazard-prone areas with federal relief funds)?

The State Level

State level response to the hazard awareness problem depends on the attitude of state emergency preparedness officials and the support for such efforts within the legislative process. Given some support, the state level can provide:

- planning and development of basic materials keyed to a specific state which can then be localized (perhaps leaving blank spaces for printing local phone numbers, shelters, evacuation routes, etc.);

- a good pass-through for federal funds designated for awareness/disaster mitigation programs;
- aid in identifying risks;
- aid in identifying sources of funding and technical assistance whether state or federal level sources; and
- providing support and perhaps funding for hazard awareness programs through state legislation and igniting interest on the local level for such programs.

The Local Level

The general consensus is that local officials, and leaders should have the ultimate responsibility in their areas for increasing awareness and preparedness to natural hazards. Actions which are most appropriate to the local level include:

- finding and using as a rallying point a community leader with good standing, credibility, and interest in the natural hazard problem;
- monitoring and updating descriptions of local conditions (road, building construction, population influx) which would impact public preparedness measures;
- encouraging participation in awareness programs by local businesses, industry, civic clubs, etc.; and
- localizing federal and state hazard awareness materials to fit a specific area or, if possible, developing their own where needed.

Survive Winter

Through Self Help and Helping Others

Federal Emergency Management Agency / National Oceanic and Atmospheric Administration - U.S. Department of Commerce

C O M M U N I T Y S U C C E S S S T O R I E S

"Discounting traffic fatalities and heart attack victims," writes Davida Matthews, Information Officer for the Ohio Disaster Services Agency, "55 Ohioans died during the blizzard of 1978 as a direct result of the storm."

These cold-related deaths could have been prevented if the victims had known how to survive winter weather. The State of Ohio decided to do something about it. With the support of Gov. James A. Rhodes, the Ohio Winter Safety Committee was formed to study ways to reach and educate the public on winter weather survival. The resulting safety campaign program became a cooperative venture, combining the talents and rescurces of several state, federal and private non-profit agencies. The result was an Ohio Winter Safety Week, now an annual event, produced at minimal cost to the taxpayer.

A proclamation by the Governor triggers a media blitz that covers the state. The campaign provides special winter weather safety media packets to every newspaper and radio and television station in Ohio. In addition, the broadcast media receives radio and video tapes and scripts for use as public service announcements. (The Ohio Disaster Services Agency notes that annually the media donates an estimated $1 million in public service time and space.) Members of the committee, including the Ohio Disaster Services Agency, Ohio Health Department, National Weather Service, and the Ohio Insurance Institute (a non-profit organization) have a speakers' bureau which provides experts on various aspects of winter safety for group presentations and media interview requests. Local level efforts are also made to distribute free winter weather survival pamphlets and information.

* * * * * *

In New Hampshire, winter is announced to its citizens with both the commercial television station and the public educational network presenting "Survival in the Winter Storm," (See, V. Resources, Audio/Visual Aids and PSAs)an arrangement made with these stations by the New Hampshire Civil Defense and

followed through each year. This videotape includes an official introduction by the Governor of New Hampshire, in that state's edited version. The commercial station also telecasts PSAs on winter preparedness and woodstove safety.

Last year in New Hampshire, a concentrated winter preparedness program was developed by the civil defense agency in cooperation with the Governor's Council on Energy and the Division of Human Resources to provide informational material to the public. Sample mailings were made to the Civil Defense Directors throughout the state, and, upon request, bulk mailings were made to communities for public distribution. Materials were given out at energy fairs and promoted on radio talk shows. The Governor proclaimed a "Winter Preparedness Day." The New Hampshire Civil Defense newsletter promoted the campaign.

* * * * * * *

Both Ohio and New Hampshire have had success with their campaigns and feel that their citizens are better able to handle the hazards of winter as a result of their safety campaigns.

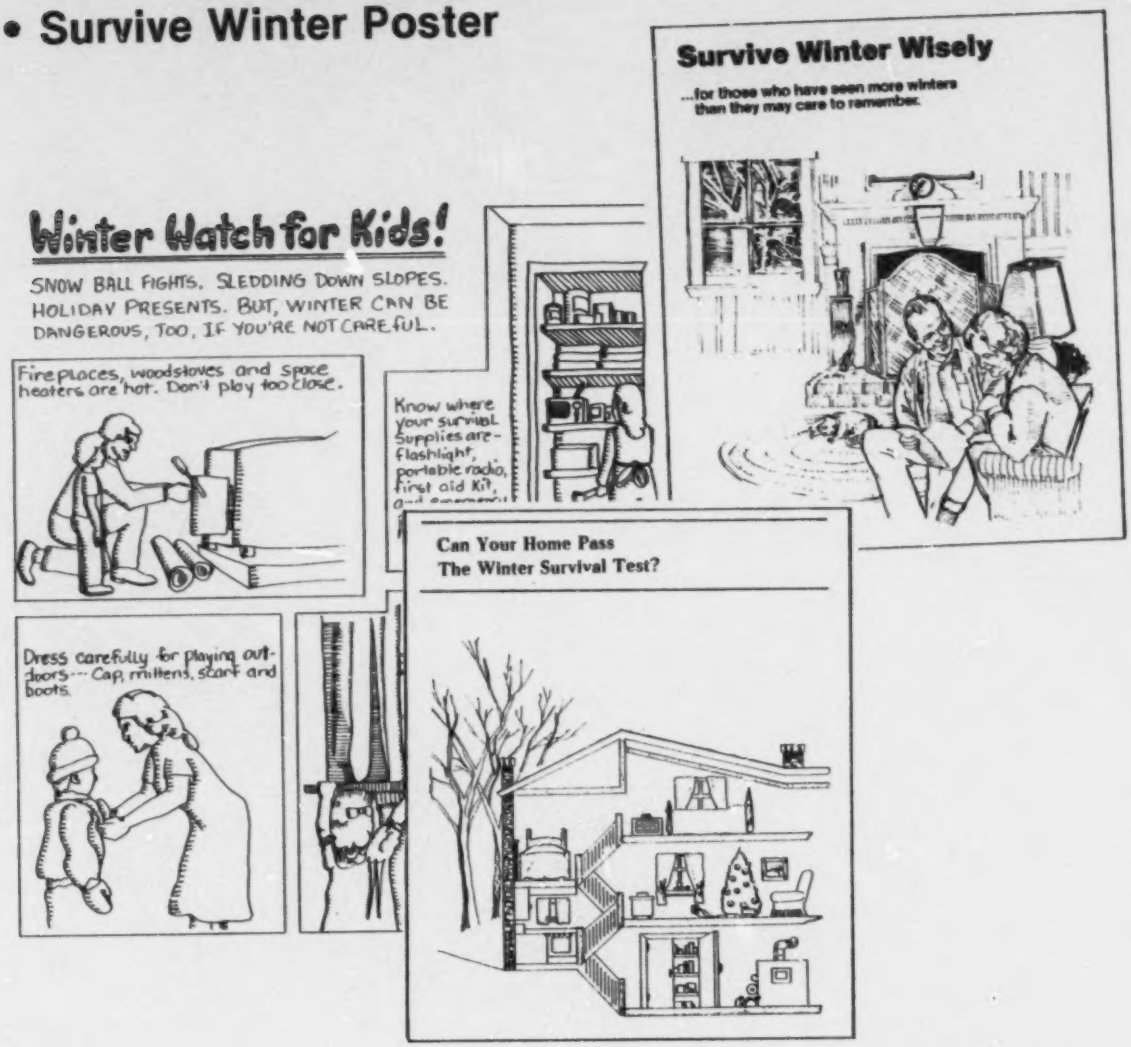
More information about their campaigns, and the successes these states have had in preparing communities for winter storm problems will be included, along with stories about other winter storm survival programs across the country, in a supplement to your workbook. These "Community Success Stories" will include ideas that you, too, can work into your individual campaigns to help save lives in this coming winter. As soon as the success story supplement is finished, it will be mailed to you for your use.

If you have a success story about your program that you would like to see included with this supplement so that you can share your program ideas that have worked with others, please send this information to:

Stacey Webber
Office of Public Affairs
Federal Emergency Management Agency
Washington, D.C. 20472

II. PARENTS / TEACHERS / FAMILIES

- **Can Your Home Pass the Winter Survival Test?**
- **Winter Watch for Kids**
- **Survive Winter Coloring Book**
- **Christmas Tree Hanger on Tree Safety**
- **Survive Winter Wisely**
- **Survive Winter Poster**


Survive Winter Wisely
...for those who have seen more winters than they may care to remember.
Winter Watch for Kids!
SNOW BALL FIGHTS. SLEDDING DOWN SLOPES. HOLIDAY PRESENTS. BUT, WINTER CAN BE DANGEROUS, TOO, IF YOU'RE NOT CAREFUL.
Fireplaces, woodstoves and space heaters are hot. Don't play too close.
Know where your survival supplies are - flashlight, portable radio, first aid kit,
Dress carefully for playing outdoors --- Cap, mittens, scarf and boots.
Can Your Home Pass
The Winter Survival Test?

PARENTS/TEACHERS/FAMILIES

New publications have been developed by FEMA which are designed to encourage self-help at home. The role that children can play is emphasized through a coloring book, posters, and family activities. A publication for those over 65 suggests ways to stay warm safely and economically.

Limited copies of these materials are available from FEMA (see the order form in Section V of this Workbook). Or you can print your own using this copy as camera-ready art. Appropriate groups -- such as parent-teacher's associations, church groups, and senior citizen's groups -- can be contacted to sponsor printing and distribution of these materials. The involvement of local groups in your campaign will lend a stronger endorsement to the message. For more suggestions on acquiring local sponsors, see the Hazard Awareness Guide in Section I.

(back cover, p.8)

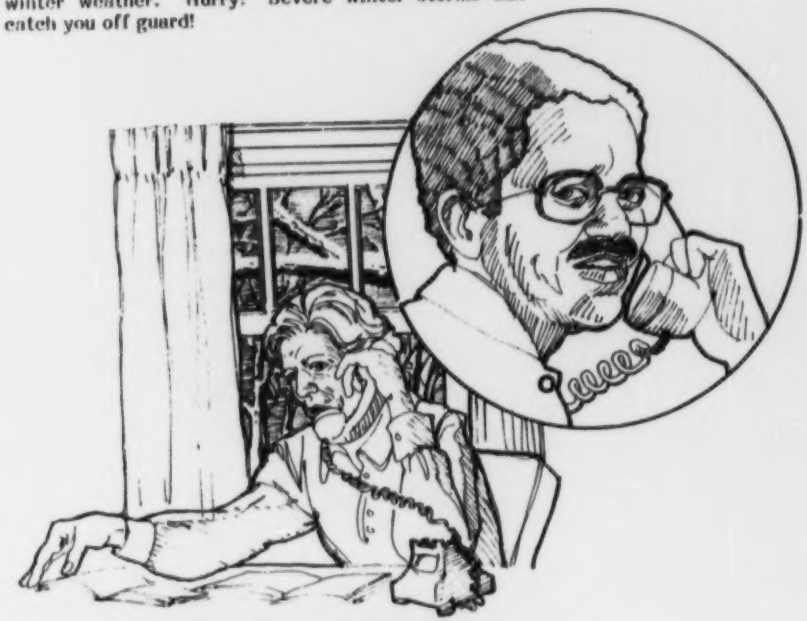
Fold

(7" x 8½" folded)

(cut line)

Score

You should have answered "Yes" to all items except 7, 15, and 28. If you did, your winter safety skills are ready for the cold season. If you didn't, there is still time to prepare your family and your home for severe winter weather. Hurry! Severe winter storms can catch you off guard!



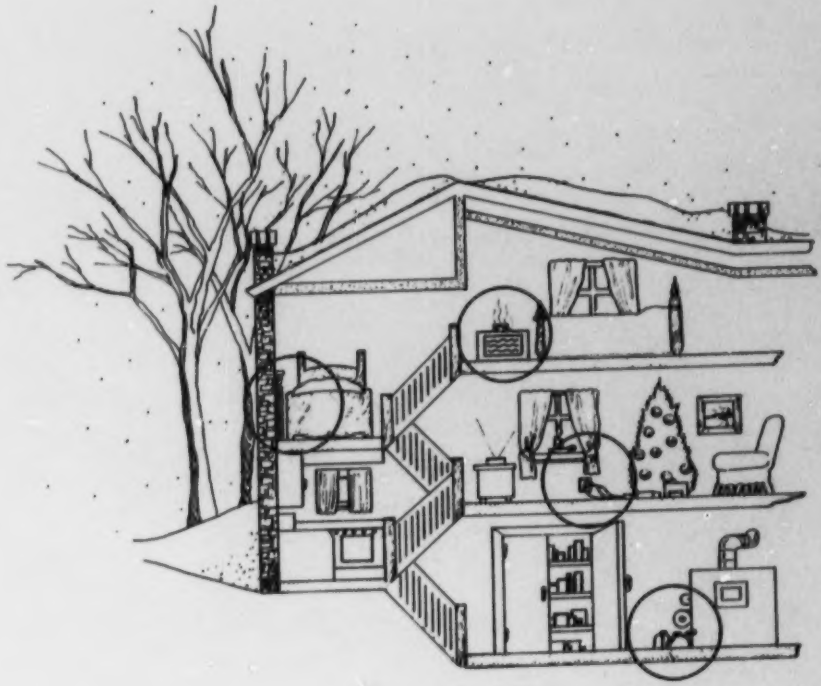
A FEW MORE WINTER HINTS . . .

Keep posted on weather conditions. Even a few hours' notice will help you and your family to cope better with severe winter weather.

Winter can be an enjoyable season, but we must be prepared for its hazards. Thinking ahead can make your winter safe and comfortable.

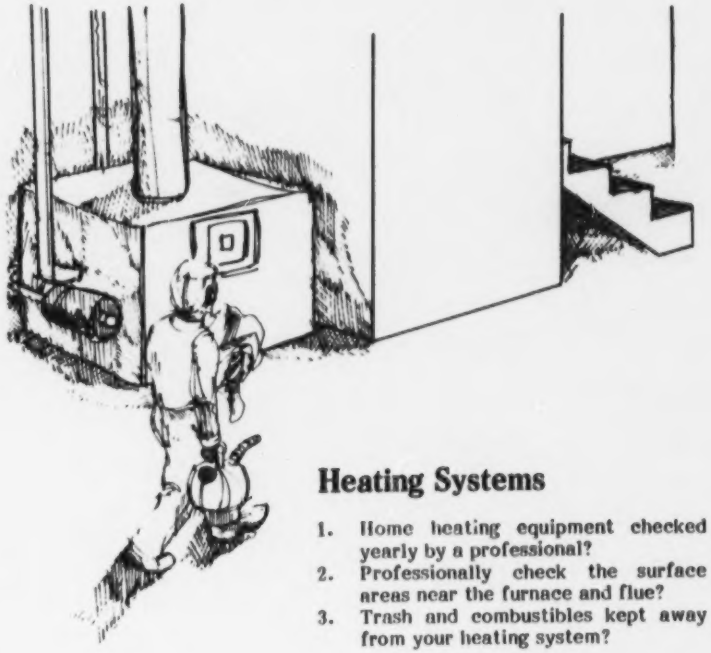
Can Your Home Pass The Winter Survival Test?

Federal Emergency Management Agency / National Oceanic and Atmospheric Administration U.S. Department of Commerce



Can Your Home Pass The Winter Survival Test?

Your home can keep you warm and protected during the worst blizzards and freezing temperatures—if you're ready for them. Thinking about safety precautions before winter storms strike can save you unnecessary hardship and worry when temperatures drop. Now's the time to brush up on your winter preparation skills. Take this simple test and check many potential household trouble spots now.

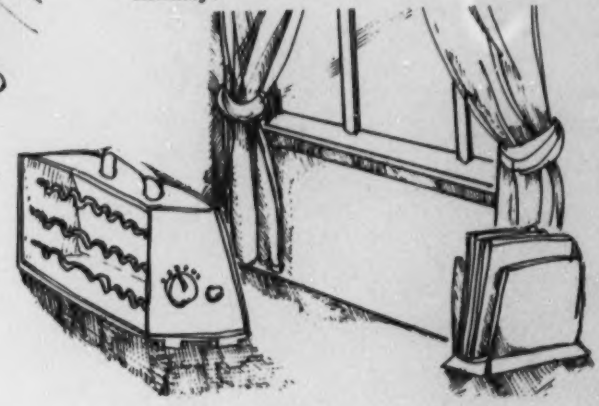


Heating Systems

		Yes	No
1.	Home heating equipment checked yearly by a professional?	☐	☐
2.	Professionally check the surface areas near the furnace and flue?	☐	☐
3.	Trash and combustibles kept away from your heating system?	☐	☐

Room Heaters and Fireplaces

		Yes	No
4.	Fireplace protected by a metal fire screen?	☐	☐
5.	Damper open before lighting the wood stove or fireplace?	☐	☐
6.	Your room heater or fireplace cleaned lately?	☐	☐
7.	Fill your oil or kerosene heater while it is burning?	☐	☐
8.	Flue pipes clean and well-supported?	☐	☐
9.	Gasoline or kerosene stored outside?	☐	☐
10.	Use appropriate fuel (kerosene for outdoor heaters, K-2 for indoor)?	☐	☐
11.	Proper clearances provided around space heaters?	☐	☐
12.	Small children kept away from fireplaces and stove heaters?	☐	☐
13.	Check your fireplace before bedtime?	☐	☐
14.	Accumulated ashes removed from your wood stove?	☐	☐
15.	Cracks or loose bricks in your chimney?	☐	☐

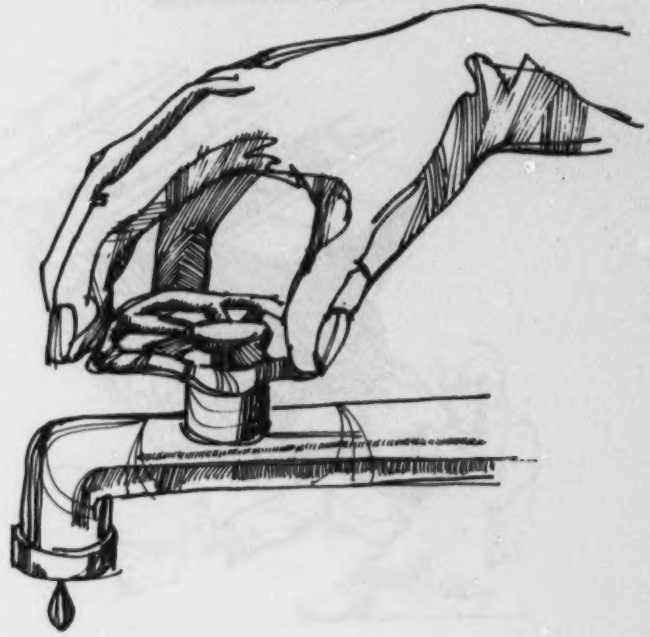


Kitchen

	Yes	No
16. Gas range or oven used to heat your kitchen?	☐	☐
17. Emergency supply of nonperishable food?	☐	☐
18. Emergency water supply?	☐	☐
19. Eat well-balanced, nutritional meals (at home and away)?	☐	☐
20. Filters in your exhaust fans cleaned lately?	☐	☐

Pipes

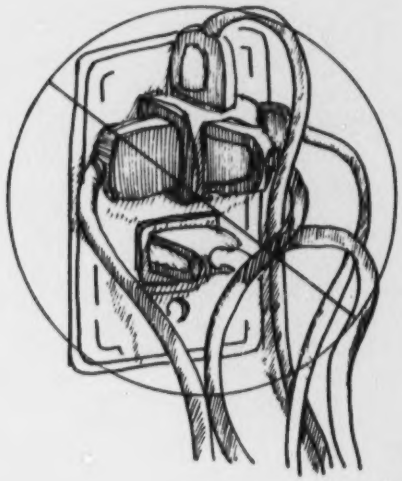
	Yes	No
21. Hot water pipes wrapped in newspapers or specially made, water pipe insulation?	☐	☐
22. Seal openings around pipes with caulk or fiberglass insulation?	☐	☐
23. Know location of the main water valve?	☐	☐
24. When pipes freeze, would you remove insulation, wrap with rags, open faucets, and pour hot water on pipes?	☐	☐
25. When it is extremely cold, do you let your faucets drip a little?	☐	☐



Emergency Supplies

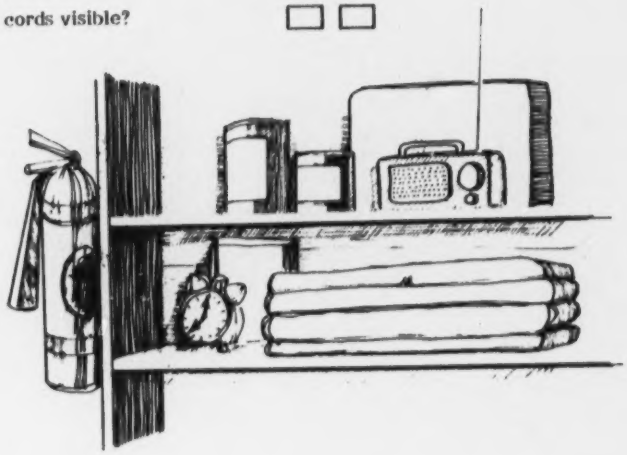
	Yes	No
26. Have the following emergency supplies on hand?	☐	☐

Extra candles
Matches
Battery-powered radio and extra batteries
Flashlight
Extra medical supplies
Fire extinguisher
Nonelectric clock
Nonelectric can opener
Several lightweight blankets



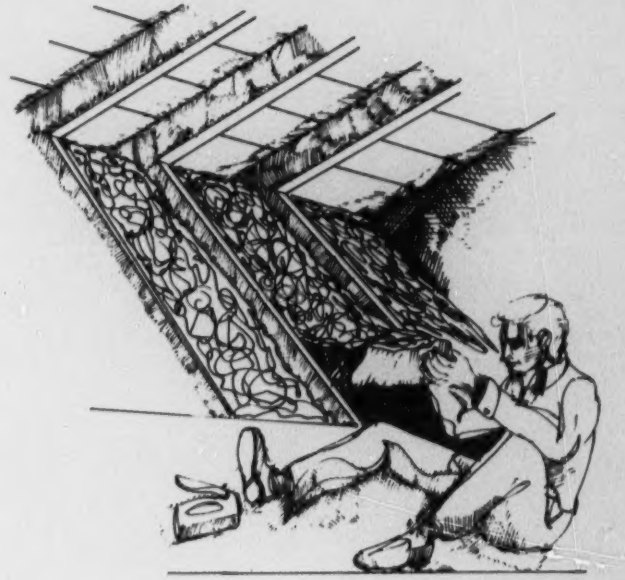
Wiring

	Yes	No
27. Routinely check electrical cords for wear?	☐	☐
28. Overloaded circuits and extension cords?	☐	☐
29. Electrical cords visible?	☐	☐



General

	Yes	No
30. Storm windows installed?	☐	☐
31. Weatherstripped attic and basement doors?	☐	☐
32. Emergency numbers near the telephone?	☐	☐
33. Agree with neighbors to keep a watchful eye on one another during severe winter weather?	☐	☐
34. Wear loose-fitting, layered clothing?	☐	☐
35. Wear a hat during cold months?	☐	☐
36. Before the season starts, do you clean leaves out of gutters?	☐	☐



Survive Winter

Through Self Help and Helping Others

Federal Emergency Management Agency / National Oceanic and Atmospheric Administration - U.S. Department of Commerce

LESSONS FOR A LIFETIME

Dear Parent or Teacher:

Once learned, winter survival skills can last a lifetime. You can help children prepare for winter by taking a few moments to teach some important lessons. Here are a few hints.

- Make a game of listing emergency food and pantry supplies. Award a prize to the child who can think of or find the most.
- Let the child help in preparing an emergency kit. Give the list to the child and buy the supplies together.
- Teach a child to listen to weather reports. A chalk board in the kitchen or play area can be used to record the day's temperatures. Ask the child for the daily weather report.
- Christmas is a good time of year to learn about lighting hazards. As you and the children decorate, point out potential trouble spots. Explain safeguards about Christmas tree care.

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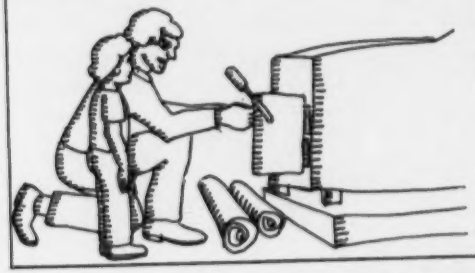
Washington, D.C.

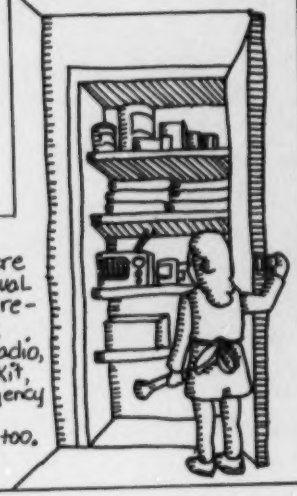
Winter Watch for Kids!

SNOW BALL FIGHTS. SLEDDING DOWN SLOPES. HOLIDAY PRESENTS. BUT, WINTER CAN BE DANGEROUS, TOO, IF YOU'RE NOT CAREFUL.

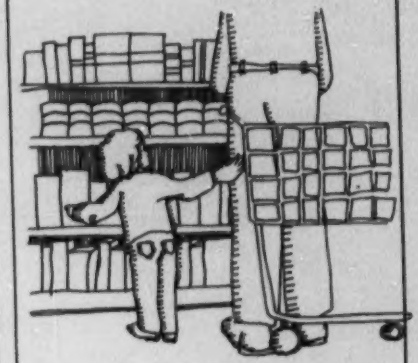
Fireplaces, woodstoves and space heaters are hot. Don't play too close.



Know where your survival supplies are - flashlight, portable radio, first aid kit, and emergency phone numbers, too.



Have extra blankets handy, maybe one on you're bed.



AT the store, remind mom or dad to stock up on extras in case a storm strands everyone at home. Don't forget food for energy value.

Dress carefully for playing outdoors --- Cap, mittens, scarf and boots.

Even on holidays, Candles in windows are dangerous.

Tell mom or dad if you see any overloaded electrical sockets, and keep the tree away from heat.

If you're tree needs water, feed it.

Listen carefully to weather reports, so you can be prepared with boots, and be home safely before a storm.

WINTER SURVIVAL COLORING BOOK

DRESS WARM WHEN PLAYING OUTSIDE

FEDERAL EMERGENCY MANAGEMENT AGENCY

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

KNOW WHERE FLASHLIGHTS ARE

KEEP AWAY FROM FIREPLACE

DON'T TOUCH ELECTRICAL CORDS

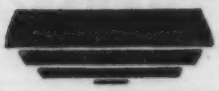
BE CAREFUL AROUND SPACE HEATERS

LISTEN TO WEATHER REPORTS

KNOW THE PROPER USE OF MATCHES AND CANDLES

WHAT IS A SMOKE DETECTOR?

Give the gift of life



GIVE A
SMOKE DETECTOR

FEDERAL EMERGENCY
MANAGEMENT AGENCY

Safety and Your Tree

1. Place your tree away from heat.
2. Use only noncombustable decorations.
3. Inspect lighting for frayed wire, broken plugs and sockets, ect.
4. Keep base of tree in water & check it daily.
5. Be sure to remove tree soon after the holidays...before needles get too dry.

Regale el don de la vida.

Regale un detector de humo.

FEDERAL EMERGENCY
MANAGEMENT AGENCY

Para su seguridad y la de su árbol.

No coloque su árbol cerca de la calefacción.

No utilice adornos o decoraciones que puedan ser inflamables.

Inspeccione el alumbrado de su árbol, y asegúrese que los alambres no se encuentren desgastados ni deshilachados y que los enchufes no estén rotos.

Sumerja en agua la base (tronco) del árbol y revise el nivel del agua diariamente.

Tan pronto terminen los días festivos, deshágase del árbol ya que las ramas se pueden secar demasiado.

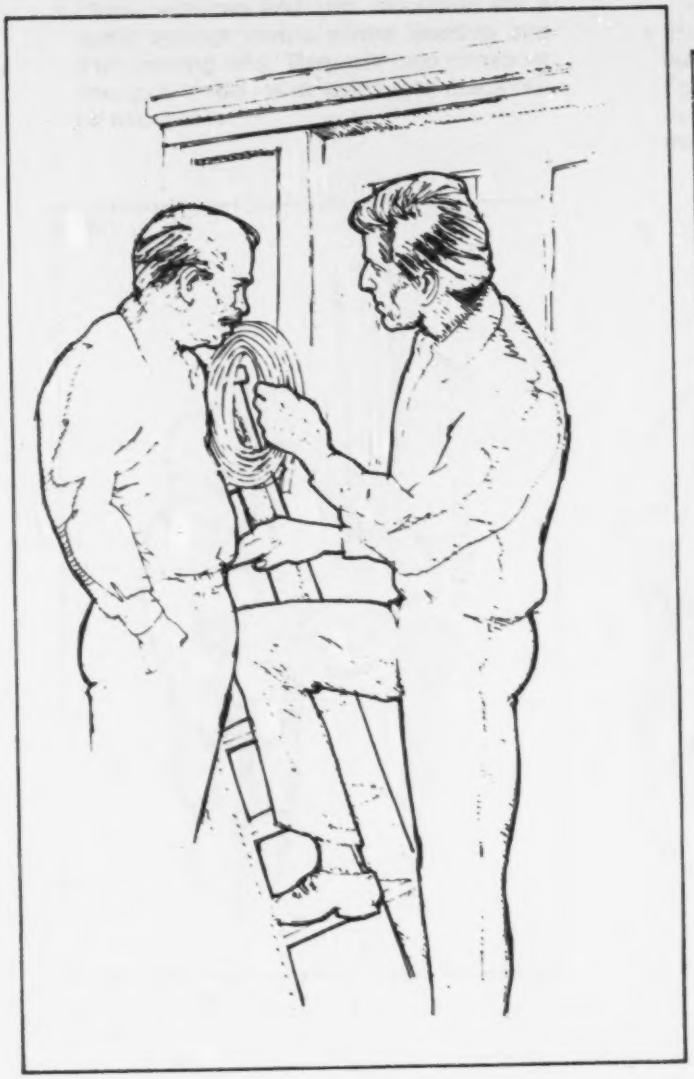
Survive Winter Wisely

...for those who have seen more winters than they may care to remember.

FEDERAL EMERGENCY MANAGEMENT AGENCY / NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION – U.S. DEPARTMENT OF COMMERCE

Ready for another winter?

Older Americans have seen many severe winters and perhaps have suffered because of them. This needn't happen again if you spend a few moments *now* to get ready for the impending cold weather. Each year your body becomes more sensitive to winter's outbursts, but steps can be taken in the home to avoid potential trouble spots. Action taken now will allow you more comfort later and save you money as well. Get ready to weather this winter.



Your Home—Keep It Insulated, and Take Safety Precautions

- A well-insulated home is also a key to winter comfort. Have a friend or relative help caulk and weatherstrip windows and doors for added protection. Your local agency on aging may also provide assistance.

- Storm windows and attic insulation are a guard against severe winter weather and high heating bills. They will help conserve energy and reduce air leaks. One crack can be expensive.

- Furnaces should be regularly checked for adequate fuel supply and efficiency. To supplement your regular unit, install a space heater or wood stove in a room where you spend a lot of time. *This is one place where it pays to use a professional for installation and maintenance.*

- Keep clothing and other combustibles away from space heaters and wood stoves. It doesn't take long for old newspapers to catch on fire and destroy your home.

- Everyone is feeling the economic pinch, but don't do foolish things to stay warm. *Opening your stove or sleeping with a still-burning fire can have serious consequences.*

Your Peace of Mind

- Alert neighbors and friends are a valuable asset to an older person. Staying in touch provides security in a particularly bad storm, and there may be occasions when they need help, too.

Pace Your Outdoor Activity

- *If you must go outdoors and exert yourself in the cold weather, pace your activity.* If possible, ask a friend or neighbor to help with any heavy work, such as shoveling the driveway.

- Keep a thermos of warm beverage closeby while outside.

- Staying active helps the body generate its own heat. However, overexertion can pose a serious problem. Cold weather itself puts a strain on the heart. Added exercise, such as shoveling snow or even walking fast, can increase the risk of heart attack or stroke.

- Since the body loses three-quarters of its heat through the head, it makes sense to invest in a wool hat. A wool hat can easily help you keep warm, even during sleep.

- Hypothermia is particularly threatening to older adults. The internal body temperature drops below 95° and a person can experience confusion, slurred speech, stiff muscles, or even uncontrollable shivering. If symptoms of hypothermia occur, results could be fatal.

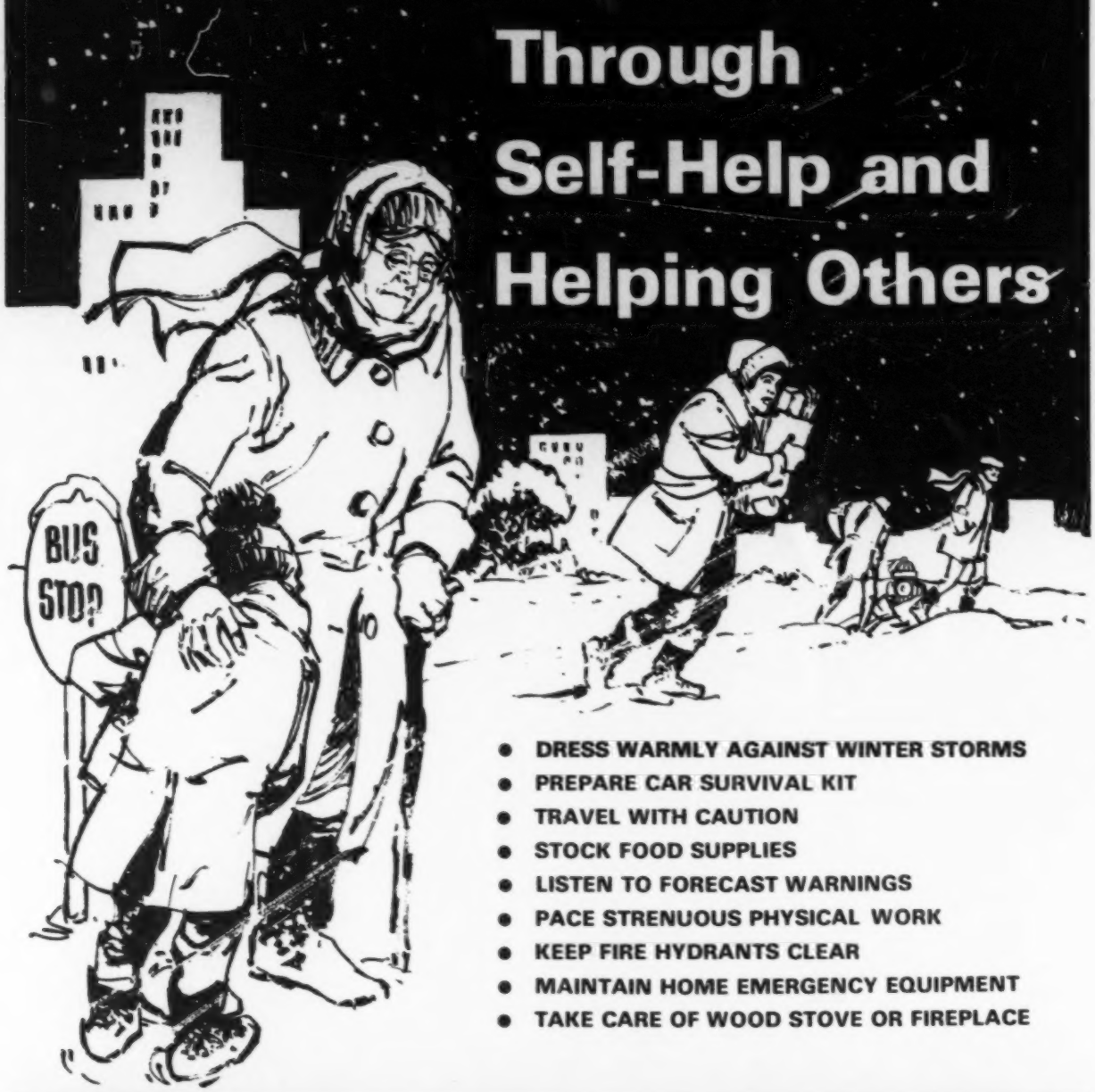
Take Care Of Your Health

- Don't neglect yourself. Eating and dressing properly can provide natural warmth. Well-balanced meals help the body produce its own heat, and several thin layers of clothing provide increased protection. This is very important since a long, hard winter is predicted.
- A nonperishable food supply with high energy contents (peanut butter or raisins) and an ample amount of drinking water should be kept on hand.
- Be sure you have adequate medical supplies for the longer winter months ahead. Check with your doctor to see which medications might interfere with your body's temperature control and take your temperature regularly. On a really cold day, you might not be as warm as you think.

These are just a few hints to help you begin your winter watch wisely. Remember, it pays to plan ahead, especially if the winter months are troublesome for you. Winter can be a pleasant season if you're prepared for most emergencies.

SURVIVE WINTER

Through Self-Help and Helping Others



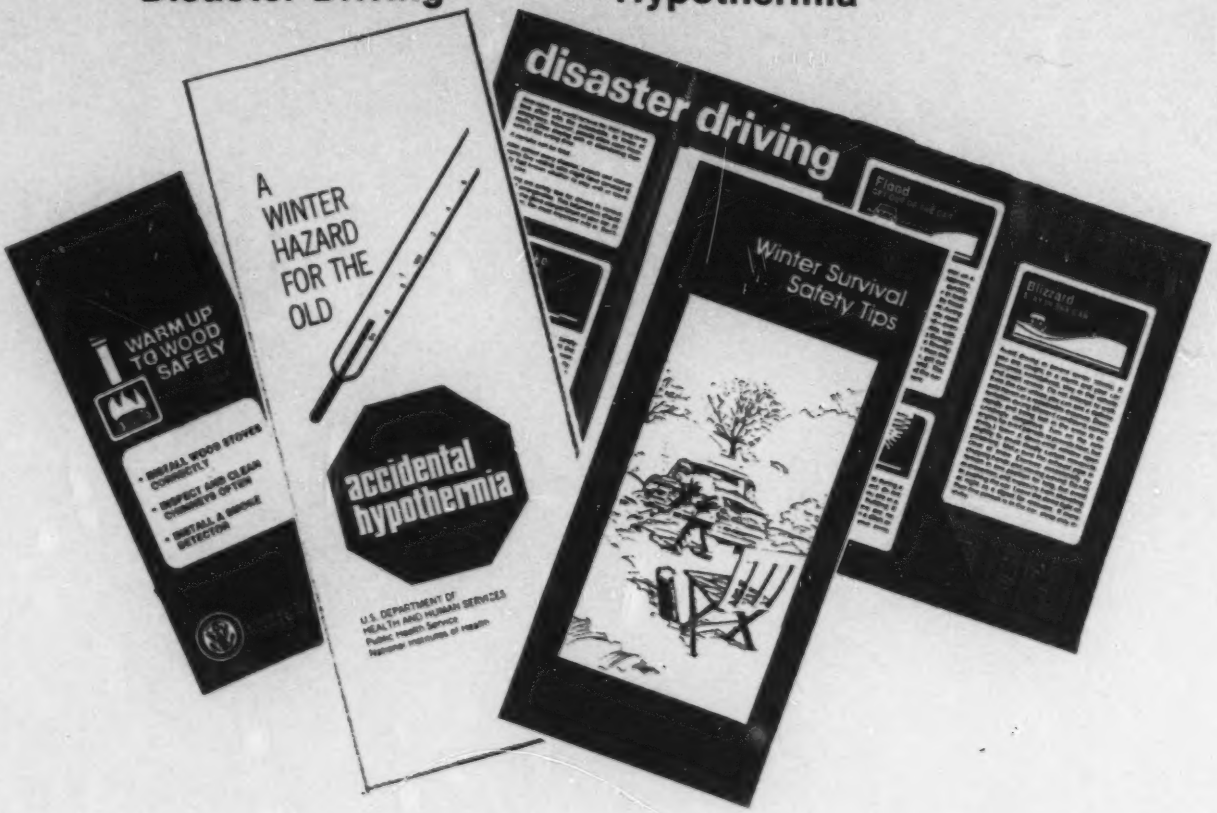
- DRESS WARMLY AGAINST WINTER STORMS
- PREPARE CAR SURVIVAL KIT
- TRAVEL WITH CAUTION
- STOCK FOOD SUPPLIES
- LISTEN TO FORECAST WARNINGS
- PACE STRENUOUS PHYSICAL WORK
- KEEP FIRE HYDRANTS CLEAR
- MAINTAIN HOME EMERGENCY EQUIPMENT
- TAKE CARE OF WOOD STOVE OR FIREPLACE

FEDERAL EMERGENCY MANAGEMENT AGENCY

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

III. CAMERA READY MATERIALS — Artwork for Brochures, PSA's, Posters, etc.

- Winter Survival Tips
- Winter Storms
- Winter Fires
- Disaster Driving
- Woodstove & Fireplace Safety
- Space Heater Use
- Safe Use of Insulation
- Hypothermia



CAMERA READY MATERIALS

This section is a compendium of brochures, pamphlets, and other information to alert consumers to the hazards of winter and how to cope with them. In some cases, the authoring organization may be able to provide bulk materials for your campaign. In others, the materials can be reproduced with your own logo, or the name of your sponsor, and adapted to reflect your community's needs.

Topics cover:

- Winter Survival Tips
- Winter Storms
- Winter Fires
- Wood Stoves and Fireplaces
- Wood Stove/Fireplace Safety
- Space Heater Use
- Home Insulation
- Accident Facts
- Safe Winter Driving
- Auto Facts
- Disaster Driving
- Hypothermia
- Cold Water Survival

TRAVEL

TRAVEL ONLY IF NECESSARY. Avoid all unnecessary trips. If you must travel, use public transportation if possible. However, if you are forced to use your automobile for a trip of any distance, take these precautions.

- Make sure your car is in good condition, properly serviced, and equipped with chains or snow tires.
- Take another person with you if possible.
- Maintain a full tank of gas.

- Have emergency "winter storm supplies" in the car, such as a container of sand, shovel, windshield scraper, tow chain or rope, flashlight, and blankets or sleeping bags. It also is good to have with you heavy gloves or mittens, overshoes, extra woolen socks, and winter headgear to cover your head and face.
- Travel by daylight and use major highways if you can. Keep the car radio turned on for weather information and advice.
- Drive with all possible caution. Don't try to save time by traveling faster than road and weather conditions permit.
- Don't be daring or foolhardy. Stop, turn back, or seek help if conditions threaten that may test your ability or endurance, rather than risk being stalled, lost, or isolated. If you are caught in a *blizzard,* seek refuge immediately.

KEEP CALM IF YOU GET IN TROUBLE. If your car breaks down during a storm, or if you become stalled or lost, don't panic. Think the problem through, decide what's the safest and best thing to do, and then do it slowly and carefully. If you are on a well-traveled road, show a trouble signal. Set your directional lights to flashing, raise the hood of your car, or hang a cloth from the radio aerial or a car window. Then stay in your car and wait for help to arrive. If you run the engine to keep warm, remember to open a window enough to provide ventilation and protect you from carbon monoxide poisoning.

Wherever you are, if there is no source of help in the immediate vivinity, do not leave your car to search for assistance, as you may become confused and get lost.

AVOID OVEREXERTION. Every winter many unnecessary deaths occur because people – especially older persons, but younger ones as well – engage in more strenuous physical activity than their bodies can stand. Cold weather itself, *without* any physical exertion, puts an extra strain on your heart. If you add to this physical exercise, especially exercise that you are not accustomed to – such as shoveling snow, pushing an automobile, or even walking fast or far – you are risking a heart attack, a stroke, or damage to your body in winter weather.

FEDERAL EMERGENCY MANAGEMENT AGENCY

October 1979

winter storms

safety tips for winter storms

FEDERAL EMERGENCY MANAGEMENT AGENCY

SAFETY TIPS FOR WINTER STORMS

Winter storms in the form of blizzards, heavy snows, ice, freezing rain, or sleet can be a serious hazard to people in many parts of the country. The first line of protection is to KEEP POSTED ON WEATHER CONDITIONS in the surrounding area through television, radio, and newspapers.

FORECASTS AND WARNINGS

A few hours of warning of a storm can be the key to avoiding being caught in it, or at least to be better prepared to cope with it. To take full advantage of weather forecasts and warnings, learn and understand terms commonly used:

● A *heavy snow warning* usually means an expected snowfall of 4 inches or more in a 12-hour period, or 6 inches or more in a 24-hour period. Travelers advisories are commonly issued for *snow squalls,* or *blowing and drifting* snow because visibility may be reduced and roads may become slippery or blocked creating hazardous driving conditions.

● A *blizzard* is the most dangerous of all winter storms. It combines cold air, heavy snow, and strong winds that blow the snow about and may reduce visibility to only a few yards. A *blizzard warning* is issued when the Weather Service expects considerable snow and winds of 35 miles per hour or more. A *severe blizzard warning* means that a very heavy snowfall is expected, with winds of at least 45 miles an hour and temperatures of 10 degrees or lower.

● *Freezing rain or freezing drizzle* is forecast when expected rain is likely to freeze as soon as it strikes the ground, putting a coating of ice on roads and other exposed objects.

● Sleet is small particles of ice. If enough sleet accumulates on the ground, it will make the roads slippery.

ISOLATION

BE PREPARED FOR ISOLATION AT HOME. If you live in a rural area, make sure you could survive at home for a week or two in case a storm isolated you and made it impossible for you to leave. You should:

● Keep an adequate supply of heating fuel on hand and use it sparingly. Your regular supplies may be curtailed by storm conditions. If necessary, conserve fuel by keeping the house cooler than usual, or by "closing off" some rooms temporarily. Also have available some kind of *emergency* heating equipment and fuel so you could keep at least one room of your house warm enough to be livable. This could be a camp stove with fuel, or a supply of wood or coal if you have a fireplace. If your furnace is controlled by a thermostat and your electricity is cut off by a storm, the furnace probably would not operate and you would need emergency heat.

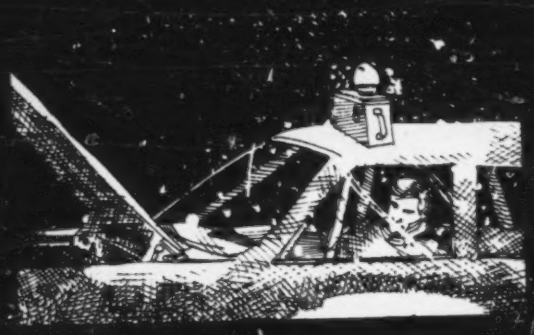
● Stock an emergency supply of food and water, as well as emergency cooking equipment such as a camp stove. Some of this food should be of the type that does not require refrigeration or cooking.

● Make sure you have a battery-powered radio and extra batteries on hand, so that if your electric power is cut off you could still hear weather forecasts, information, and advice broadcast by local authorities. Also, flashlights or lanterns would be needed.

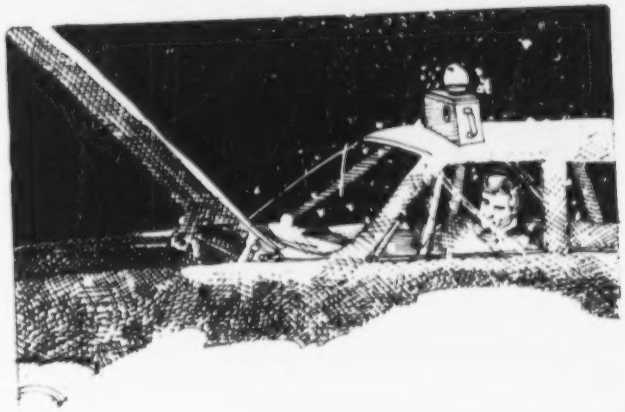
● Keep on hand the simple tools and equipment needed to fight a fire. Also, be certain that all family members know how to take precautions that would prevent fire at such a time, when the help of the fire department may not be available.

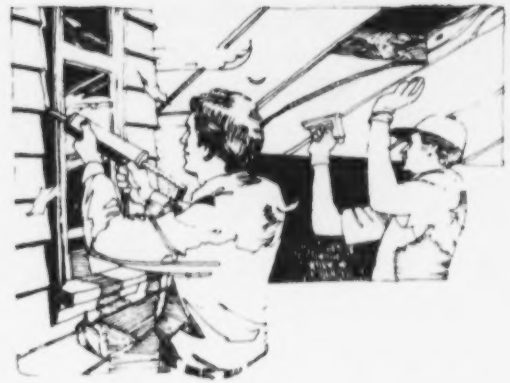
CAUTION: Know how to use your emergency heating and lighting equipment safely to prevent fire or dangerous fumes. Use only safety listed equipment. Never introduce a fuel into a unit not designed for that fuel. Proper ventilation is essential. Burning charcoal gives off deadly amounts of carbon monoxide.

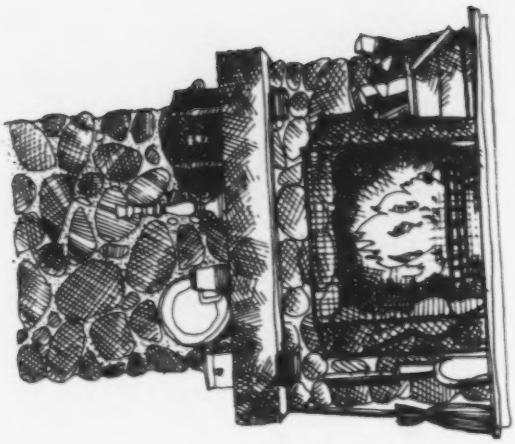
How to
prepare for
Winter Survival

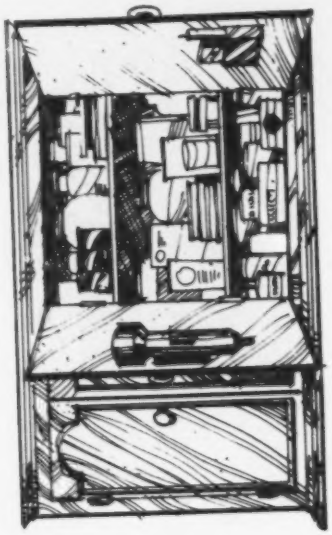


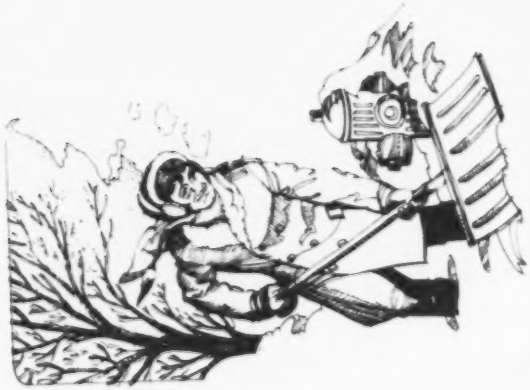
Winter Survival Safety Tips

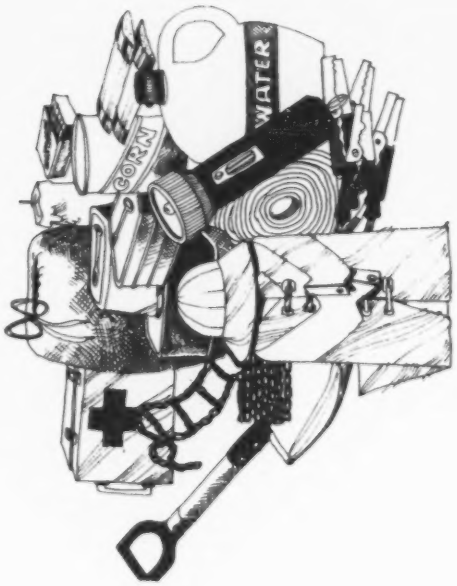






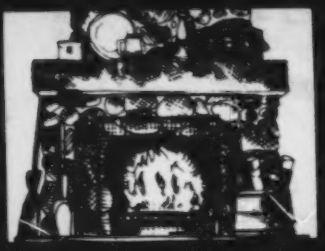




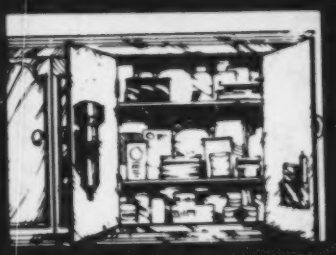

WATER
CORN

Winter Survival Safety Checklist

☑ LISTEN TO FORECAST WARNINGS



☑ TAKE CARE OF WOOD STOVE OR FIREPLACE



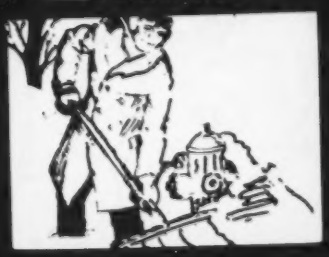
☑ STOCK FOOD SUPPLIES

☑ MAINTAIN HOME EMERGENCY EQUIPMENT

☑ PREPARE CAR SURVIVAL KIT

☑ PACE STRENUOUS PHYSICAL WORK

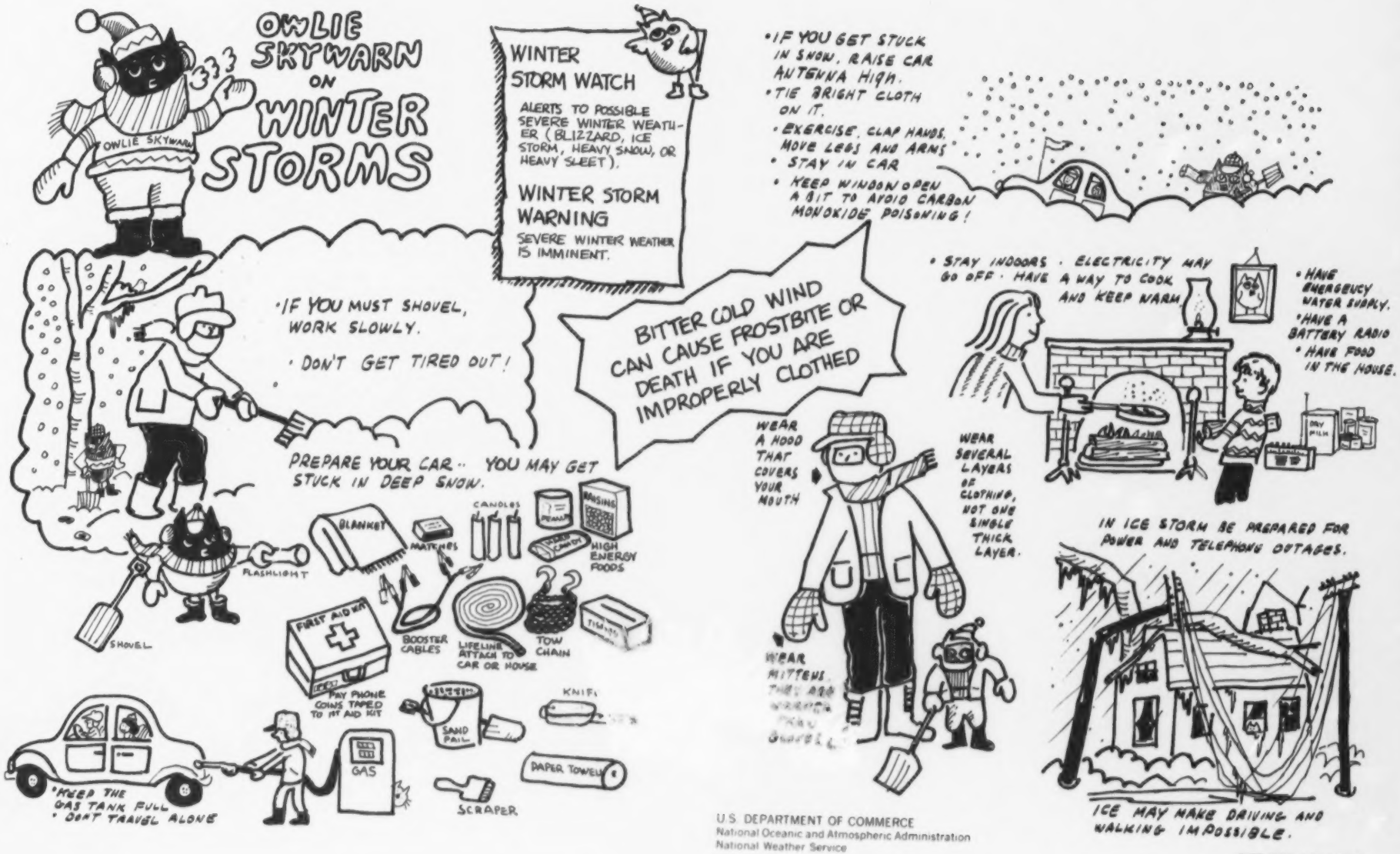
☑ TRAVEL WITH CAUTION



☑ KEEP FIRE HYDRANT CLEAR

FEDERAL EMERGENCY MANAGEMENT AGENCY

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE


OWLIE SKYWARN ON WINTER STORMS
OWLIE SKYWARN
WINTER STORM WATCH
ALERTS TO POSSIBLE SEVERE WINTER WEATHER (BLIZZARD, ICE STORM, HEAVY SNOW, OR HEAVY SLEET).
WINTER STORM WARNING
SEVERE WINTER WEATHER IS IMMINENT.
•IF YOU GET STUCK IN SNOW, RAISE CAR ANTENNA HIGH.
• TIE BRIGHT CLOTH ON IT.
• EXERCISE. CLAP HANDS, MOVE LEGS AND ARMS
• STAY IN CAR
• KEEP WINDOW OPEN A BIT TO AVOID CARBON MONOXIDE POISONING!
•IF YOU MUST SHOVEL, WORK SLOWLY.
• DON'T GET TIRED OUT!
BITTER COLD WIND CAN CAUSE FROSTBITE OR DEATH IF YOU ARE IMPROPERLY CLOTHED
• STAY INDOORS • ELECTRICITY MAY GO OFF • HAVE A WAY TO COOK AND KEEP WARM
• HAVE EMERGENCY WATER SUPPLY.
• HAVE A BATTERY RADIO
• HAVE FOOD IN THE HOUSE.
PREPARE YOUR CAR.. YOU MAY GET STUCK IN DEEP SNOW.
SHOVEL
FLASHLIGHT
BLANKET
MATCHES
CANDLES
HIGH ENERGY FOODS
FIRST AID KIT
PAY PHONE COINS TAPED TO MY AID KIT
BOOSTER CABLES
LIFELINE ATTACH TO CAR OR HOUSE
TOW CHAIN
SAND PAIL
KNIFE
PAPER TOWELS
SCRAPER
GAS
•KEEP THE GAS TANK FULL
• DON'T TRAVEL ALONE
WEAR A HOOD THAT COVERS YOUR MOUTH
WEAR SEVERAL LAYERS OF CLOTHING, NOT ONE SINGLE THICK LAYER.
WEAR MITTENS.
IN ICE STORM BE PREPARED FOR POWER AND TELEPHONE OUTAGES.
ICE MAY MAKE DRIVING AND WALKING IMPOSSIBLE.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service

5/77 NOAA/PA 77017

●If your fireplace hasn't been used for some time, have it and the chimney checked before using.

●Follow the directions on the package if you use man-made logs. Never break a man-made log apart to quicken the fire.

FURNACE HEATING

It's important that you have your furnace checked out and cleaned regularly, and that it be in good working condition. Furnace fire safety tips need to be observed all year round. Some things you should know:

●Be sure all furnace automatic controls and emergency shutoffs are in good condition.

●Leave furnace work to experts. Don't attempt repairs unless you are qualified.

●Have the repair man check the wall and ceiling near the furnace and flue. If they are hot, additional insulation or clearance may be needed.

●Check the flue pipes. Are they well supported? Free of holes and clean?

●Is the chimney solid? No cracks or loose bricks? All unused flue openings should be sealed with solid masonry. Are they?

●Keep trash and combustible storage away from the heating system.

●Don't store hot ashes in the home; take them outside immediately.

KITCHEN STOVES

●Never use a gas range or an oven to heat your kitchen. Any unvented fuel burning appliance is capable of producing deadly levels of carbon monoxide.

●Don't leave lit oven doors open. Children could burn themselves on the heating elements.

MISCELLANEOUS

●Frozen pipes? Don't try to thaw them with a blow torch or other open flame. Use hot water or a UL labeled device for thawing, otherwise a fire could be the result.

●If windows are emergency exits in your home, train your family to use them in case fire should strike. And see that storm windows open easily.

●As an added safety feature, install a smoke sensitive home fire alarm, available at retail stores for $30-50.

●Contact your local fire department for advice if you have a question on Home Fire Safety.

● Is there a fire hydrant outside of your home? If there should be a fire, firefighters need to be able to hook their hose up to that hydrant. Shovel the snow away from that hydrant. It may save your home, or that of your neighbors.

L-97

October 1979

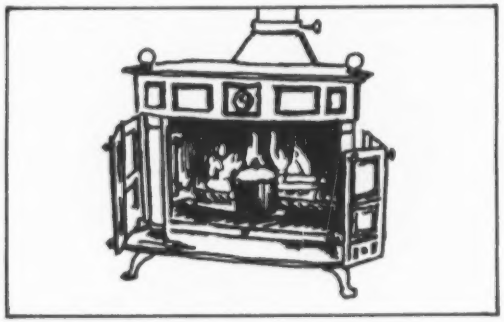
winter fires

winter fire safety tips for the home

FEDERAL EMERGENCY MANAGEMENT AGENCY

WINTER FIRE SAFETY TIPS FOR THE HOME

Americans facing an energy shortage are turning to alternate sources of home heating. The old pot-bellied and Franklin Stove market is suddenly zooming. Space heaters are selling rapidly, or coming out of storage. Fireplaces are burning wood and man-made logs. All of these supplementary heat measures can be good. But they can introduce the danger of FIRE into homes. The U.S. Fire Administration offers the following home fire safety tips:



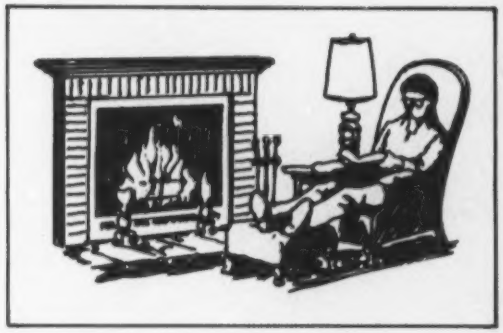
ROOM HEATING

Space heaters and heating stoves are used throughout the nation to increase the warmth in rooms. They do the job, but can be dangerous. To use them safely:

- Never use fuel burning appliances without proper vents to the outside. Burning fuel (kerosene, coal or propane, for example) produces deadly fumes.
- Be sure your heater is in good working condition. All room heaters need frequent checkups and cleaning. A dirty or neglected heater is a critical fire hazard.
- Use ONLY the PROPER fuel for each heater. NEVER INTRODUCE A FUEL INTO A UNIT NOT DESIGNED FOR THAT FUEL.
- NEVER quicken a fire with kerosene or gasoline.
- Keep gasoline, or other flammable liquids stored OUTSIDE of the home AT ALL TIMES.
- Maintain adequate clearance in all directions around space heaters and heating stoves. (Surrounding surfaces should not become too hot for your bare hand.)
- Use a screen around stoves or space heaters which have open flames. Give the heater adequate clearance from walls and combustibles, such as a clothes rack, curtains, beds, or other furniture.
- If you use an electric heater, be sure your house wiring is adequate. Avoid overloading the circuit. Avoid overloading extension cords.
- Avoid using electric space heaters in bathrooms, and certainly do not touch one when you're wet.
- When refueling an oil unit, avoid overfilling it. If cold oil is used, it will expand as it warms up inside your home and may cause burner-flooding: this could cause flare-ups. And don't fill your heater while it is burning.
- Keep young children away from space heaters – particularly when they are wearing nightgowns which can be sucked in by a draft created by the heater and ignited.
- If you are using an approved, UL labeled space heater or heating stove in your bedroom, turn off your heater or turn it low before going to bed. When using a fuel burning heater in the bedroom, open the window. Ventilation prevents suffocation that can be caused by a heater consuming oxygen.
- Use ONLY safety listed equipment. If you choose an oil heater, look for the UL label; a gas appliance, the AGA or UL label; or an electric heater, the UL label.

FIREPLACES

When temperatures inside are kept down, a crackling fire in the fireplace is a cozy and cheery way to keep warm. But these fires, if not carefully tended, could cause tragedy. To use them safely:



- Do not use flammable liquids to start the fire.
- Keep a metal screen in front of your fireplace. Flying embers can start fires.
- Don't use excessive amounts of paper to build roaring fires in fireplaces. It is possible to ignite soot in the chimney by overbuilding the fire.
- Never burn charcoal in your fireplace, or in a charcoal broiler or hibachi unit inside. Burning charcoal gives off deadly amounts of carbon monoxide.
- Be sure no flammable materials hang down from or decorate your mantel. A spark hitting them from your fireplace fire could ignite these materials and cause a fire.
- When you go to bed, be sure your fireplace fire is out. NEVER CLOSE YOUR DAMPER WITH HOT ASHES IN THE FIREPLACE. A closed damper can help hot ashes build up heat to the point where a fire could flare up and ignite the room while you are asleep.

YOUR BURNING QUESTIONS ANSWERED

"How high must my chimney be?"

The top of your chimney must be at least 3' above the highest point of its roof opening and never less than 2' above any portion of a building within a 10' radius.

"Must I supply outside air to my stove?"

NO. . . not necessarily. Providing there is an adequate supply of air to the combustion chamber your stove should burn properly. However, in homes which are well sealed and insulated there may not be enough fresh air entering the house to feed the added demands of the woodstove and it may begin smoking.

In these cases, additional outside air should be supplied.

"Do I need a permit to install a woodheater?"

YES. . . in most localities you will have to get a building permit. Check with your local building code or fire prevention authority to find out which regulations are in force in your area.

Your dealer can usually tell you who to contact.

"Is 'efficiency' important?"

YES, because inefficiency is wasteful. . . wasteful of both your time and money, and. . . our valuable resources. However, many people are beginning to think that choosing the right size appliance and locating it properly are as important as efficiency.

In other words, there's more to consider than just the efficiency rating.

BURNING QUESTIONS

"Is one large stove better than two small stoves?"

NO! Most woodstoves are more efficient when they are fired at a fairly high burning rate. An oversized stove can generate too much heat for the space to be heated.

With two smaller stoves, the second stove need only be fired during extreme cold temperatures. You have more control.

"Is cast iron better than steel?"

NO! Both cast iron and steel have a similar heat holding and radiating characteristics. It's primarily the weight of a stove that affects these characteristics.

A heavy stove holds heat longer while lighter stoves heat up more quickly, radiating heat sooner.

However, since cast iron and steel differ in other ways your specific requirements and not just the material should dictate your choice. Your dealer can help you decide which stove is best suited to your needs.

"How often must I clean my stovepipe and chimney?"

As often as necessary!

Begin by conducting a weekly inspection of your entire venting system. The inspection frequency can then be lengthened until you have decided how often cleaning is necessary.

However, your entire venting system should be cleaned at the beginning and possibly again in the middle of each burning season, preferrably by a qualified chimney sweep.

"Must I follow the manufacturer's installation instructions?"

YES! It's for your own protection.

Most manufacturers produce a quality product designed to provide years of safe and enjoyable heat. By ignoring their instructions, your installation may not only be illegal, it could also be dangerous.

To ensure that you have a safe and legal installation you should follow the manufacturer's installation instructions.

"How much wood will it take to heat my home?"

Good question. . . and difficult to answer as there are many factors influencing the calculation. Varying factors such as your local climate, the size and design of your home, the type of heating installation and, of course, how much of your home you want to heat.

Tests suggest that even on the coldest winter day the energy in only 10 pounds of wood can heat a house for about one hour.

Many users with good systems claim that they can heat their homes on 2 to 3 full cords of wood all winter.

Your dealer can probably give you a fair estimate based on the experiences of other customers in his area.

"What is a heat shield?"

A heat shield is simply a panel of non-combustible material which may be installed between your heat source and a nearby combustible surface to permit a reduction in minimum installation clearances.

But remember, your heat shield installation must conform to your local building codes.

"Do I need a fluepipe damper?"

NO. . . probably not. A fluepipe damper is simply a device for restricting the flow of smoke out through the stovepipe. With most airtight woodstoves, a damper is unnecessary.

With non-airtight stoves or freestanding fireplaces, the addition of a fluepipe damper controls the burning rate by allowing you to regulate the amount of air being demanded by the appliance.

"What is a Factory Built Chimney?"

Just that. . . a Factory Built Chimney is a metal chimney, preconstructed in a factory for shipment to a site as opposed to a masonry chimney which is constructed entirely on-site.

Factory built chimneys for use with wood and coal fired appliances are called a Type 'A' and are clearly labelled as a Factory Built Chimney.

These are the only metal chimneys certified for connection to solid fuel fired appliances.

"Can I install my own woodstove?"

YES! With a few simple tools, installing a woodstove can usually be done without a great deal of difficulty. However, for more complicated woodheating systems such as boilers or combination furnaces, you're always advised to consult a qualified contractor.

But speak to your dealer first, he can tell you exactly what's involved.

And remember, always be sure to have your final installation inspected by your local approving authority.

"Will adding a woodheater affect my insurance?"

POSSIBLY. Your existing policy may not cover the use of a woodburning spaceheater or furance as your principle source of heat.

It's always wise to check with your insurance agent before beginning any installation.

"Who approves my installation?"

Your local building code or fire prevention inspector is usually responsible for approving a woodheating installation to ensure that it meets the local building and safety bylaws.

Ask your dealer for the name of the inspecting authority in your area.

"Who can answer my woodheating questions?"

Any dealer displaying one of these symbols is a member of their Wood Energy Institute. Through their institute they have access to a comprehensive training program entitled 'Helping Make it Safe'.

This training series is specifically designed to familiarize the dealer with the safe and efficient use of woodheating systems.

And if your dealer can't answer your question he can contact his institute for assistance.

Member of

CANADIAN WOOD ENERGY INSTITUTE MEMBER

WOOD ENERGY INSTITUTE

"Can I really save money by burning wood?"

YES, in most cases, even if you must buy your wood. How much you save depends more on how much of your own time and effort you're prepared to invest in the operation and maintenance of your woodheating system.

Or to put it more simply. . . the more wood you move yourself, the more money you'll save.

"What is an 'airtight' stove?"

In theory, an 'airtight' stove is one which is completely sealed to prevent any air from entering the combustion chamber other than through an air inlet control. More correctly, they are called a 'controlled combustion' stove.

The degree of control, or airtightness, is determined by how well their seams and joints are sealed.

"How long will a woodfire last?"

That depends. What kind of appliance do you have? How often are you prepared to clean your venting system? What kind of wood are you burning?

Answering a question with more questions simply points out that there is no simple answer. There are many factors influencing the burning rate of a woodfire.

And again, there's a trade-off between the length of burn and the cleaning frequency. . . longer isn't necessarily better. Here's why.

Lengthening the buring period is achieved by reducing the amount of air reaching the fire. And yet a fire starved of oxygen doesn't burn the fuel as completely. These unburned tars and gases can only escape into the venting system where they cool and condense onto the inner walls of the fluepipe as creosote.

This increases the need for more frequent cleaning.

"What's the best kind of wood to burn?"

Seasoned wood. Wood which has been cut, split, stacked and allowed to dry for at least one year.

All species of wood provide about the same amount of heat per pound. But poplar and softwoods have less heat per cord. They are lighter and easier to handle but burn more quickly.

Hardwoods on the other hand, being denser or heavier, burn slower requiring less handling and provide more heat per cord.

In other words, softwoods simply require more handling to sustain a fire.

"Should I be concerned about creosote?"

YES. . . definately. Creosote is a fuel and like any fuel, with sufficient heat and an adequate supply of oxygen will ignite and burn. If creosote deposits are allowed to build up in your venting system, you are simply inviting a chimney fire.

A regular inspection and cleaning when necessary will help eliminate this potential hazard. If you use your appliance for long periods of slow burning, your entire venting system should be cleaned more frequently.

A qualified chimney sweeping service is an essential part of any woodburning installation.

"What do I do if my stove starts to leak smoke?"

Increase the draft. A smoking stove means there is a loss of draft which can be caused by either insufficient heat or an inadequate supply of air.

If your stove begins smoking immediately after lighting it, there is probably insufficient heat to start the stove drawing properly. Adding some burning newspaper will usually solve this temporary problem.

However, if your stove begins to smoke during operation, you may be experiencing a reverse draft due to a lack of air reaching the combustion chamber. This problem is more likely to occur in tightly sealed homes where the amount of air normally entering the building is inadequate to satisfy the additional demands of the stove.

The use of an exhaust fan for example, may be sufficient to reverse the flow of air down the chimney. Try shutting off the fan or opening a window near the stove to correct this problem. In some extreme cases it may be necessary to bring additional outside air directly into the stove. If none of these suggestions work, then the problem is with your chimney.

You either have a new neighbour who has choosen your chimney to set up house or your chimney is not the correct size as specified in your installation instructions.

"Can I use stovepipe for my chimney?"

NO! Absolutely not. Single wall metal stovepipe is only permitted for use as a chimney connector. This is specifically that portion of your venting system between the appliance and the chimney.

The chimney in turn must either be a masonry chimney of approved construction or a certified, Type 'A' Factory Built Chimney.

"Why is a stovepipe connected 'backwards'?"

Because water flows downhill. That's right, stovepipes are connected backward according to the flow of smoke to ensure that watery creosote deposits will not leak out of the stovepipe connections.

In some cases the creosote may even flow back into the stove where it can be safely burned off. This is also why horizontal sections of stovepipe are installed with their seams on top and slope downward toward the stove 1/4" per foot.

"How long should the stovepipe section be?"

The shorter, the better.

A short stovepipe connection reduces the amount of fluegas cooling which in turn reduces the amount of creosote condensation. This guideline also includes the limited use of elbows, preferrable no more than 2 sweeping elbows, not the sharp cornered type. Elbows, like length restrict the flow of smoke giving it more time to cool.

"Do chemical cleaners eliminate the need to sweep my chimney?"

NO! There is no substitute for a regular visual inspection and manual cleaning when necessary.

"Where should I locate my woodstove?"

That depends. If you intend to use your woodstove as a cost saving appliance and not merely a decorative fixture it is best placed in a room where the majority of your family activities take place. In this way its heat can be used to maintain room comfort while the rest of your home may remain at cooler temperatures while not in use.

Also, locating the stove as central as possible, away from any doors or windows will help reduce any eddying or draft effects which can disrupt its operation.

"Can I heat my entire house with a woodstove?"

YES. . . if your house was designed with this purpose in mind. If not, be prepared to live with temperature differences between rooms.

Although many woodburning space heaters are designed to heat a single room comfortably, with a little planning, some of the heat can be redirected from one room to another just by adding a few properly positioned registers. If you have a central forced air system, leaving the circulating fan on may help distribute the heat more evenly.

In general though, a woodstove is best used as a compliment to a central heating system.

"Do all woodheating appliances provide installation instructions?"

All certified stoves do. You should also inspect the appliance carefully for any warning labels as well as the installation and operating instructions.

Never hesitate to consult your dealers about any installation or operating detail you are unsure of.

Can I use a gas appliance metal chimney?"

NO! Absolutely not. Gas venting systems are not designed to withstand the temperatures of solid fuel fired appliances.

If you are planning on installing a prefabricated metal chimney, use only a Type 'A' or other chimney which has been certified for use with solid fuel appliances.

"How close can I install my stovepipe to a combustible surface?"

18" and no closer. This clearance may only be reduced if a suitable heat shield is installed between the uninsulated stovepipe and the combustible surface according to your local building bylaws.

"Can I run my stovepipe through a wall?"

NO! You should install a certified chimney directly to the room where you plan on locating your appliance. Then you can connect your appliance to the chimney with a single wall, metal stovepipe.

"Can I burn both wood and Coal in my appliance?"

Check your operating specifications.

Only if the appliance is certified for use with both fuels and clearly labelled.

"Who is my local woodheating authority?"

Anyone displaying their Diploma of Certification has successfully completed their Wood Energy Institute's introductory training program 'Helping Make It Safe'.

From building inspectors to fire fighters. . . installers to retailers, everyone involved in the safe and efficient use of wood energy is being invited to enroll in this continuing education program sponsored by their national wood energy institute.

Consult your dealer for the authorities in your area.

Do you have a question we haven't answered?

If so, then write to:

Wood Energy Institute
1101 Connecticut Ave. N.W.
WASHINGTON D.C. 20036

Unfortunately, we are not equipped to accept any phoned in questions. Only written questions can be presented to a member of our Advisory Board. Please allow at least 3 weeks for a response. Be sure to include your name and full address.

While every effort has been made to ensure that the information included in this booklet does not conflict with any government standards or regulations, the ultimate responsibility rests with the end user to ensure that their woodheating installation is approved by the fire prevention or building code authority having jurisdiction.

Inspector: _____

Telephone: _____

This booklet attempts to answer many frequently asked questions concerning the use of wood as an alternative source of heat from both current and prospective users. Only by complying with the safe and efficient guidelines set down for the installation, operation and maintenance of woodheating systems can we expect to reduce the hazards and reap the benefits associated with wood heat.

The responsibility is yours.

FIRE CENTER
publication
29
UNIVERSITY OF MINNESOTA
TWIN CITIES

Chimney fires

FRANK E. OBERG
Associate Director

Prepared by the
Fire Information, Research, Education Center
Agricultural Extension Service
Continuing Education and Extension
University of Minnesota

Fire departments, especially those in the deep-freeze areas of the country, have been forced to revive the lost art of fighting chimney fires.

Since householders have returned to wood-burning as a means of reducing heating costs and saving energy sources, there has been a boom in the sale and use of solid-fuel heating appliances. Fireplaces, once more decorative than functional, are also being used to augment conventional heating plants.

Chimney fires are now an everyday occurrence, just as they were before electricity, oil, and natural and LP gas replaced coal and wood as sources of home heating.

Early American settlements were plagued by devastating fires that originated in chimneys fueled by unseasoned firewood. One of the earliest regulations, enforced by local government in colonial America, mandated the householder to have a leather bucket, water supply and a ladder so he could extinguish chimney and roof fires in his own home.

Low-grade bituminous coal was a common home heating fuel in Minnesota about 40 years ago. It accounted for numerous chimney fires, caused by an excessive build-up of soot if improperly burned. As late as 1967 Minnesota Fire Chief featured a GISMO Corner device for helping control such fires. (See illustration)

Minnesota Fire Chief ran articles in its 1977, '80, '81 January-February issues which listed chimney fire causes and preventive instructions. In brief, the heating unit and its venting device must be properly installed and maintained. If wood is the heating source, it must be properly seasoned to prevent creosote build-up. Creosote is a product of incomplete combustion. Deposits of it in a chimney ignite and generate temperatures that can exceed 2000°F, much higher than chimneys are built to withstand over long periods.

The problem of creosote build-up is further compounded because more efficient wood-burners now operate at lower temperatures—lower stack temperatures increase the build-up rate.

Careful use and regular maintenance of solid fuel units can reduce the incidence of chimney fires, but these precautions are the sole responsibility of individual users of the heating unit. The fire department must be prepared to handle chimney fires in an efficient manner and be prepared to control more and more of them as we know that many users ignore or are unaware of preventive measures.

But unless some fire department oldtimers can be called upon to recall "how we used to do it", the departments must search diligently to find standard operating procedures for extinguishing chimney fires. Unfortunately, there is very little documented information on controlling what was once the most common of all fires.

Some rural fire departments say their calls for chimney fires have tripled in the last few years, as people switch to wood for heating purposes. Dan Curtis, training officer for the Levant (Maine) Volunteer Fire Department has devised operating procedures and has equipped the department with tools and appliances to cope with this "new" type of fire.

Writing in the April issue of Fire Engineering, Curtis contends that little attention has been given to training for handling chimney fires. He believes that as a result, poor methods are being used and that the fire department's image can suffer as result.

In Levant, handling the chimney fire starts when the department dispatcher receives the call. He reassures the caller and makes a few simple suggestions in addition to transmitting the alarm.

- While the apparatus is on the way, the fire inside the heating unit can be reduced by a covering of baking soda.
- Thoroughly wet newspapers can also help.
- Evacuate if smoke is found inside.

Levant responds with at least an engine company with ladders, smoke ejectors and other ladder company tools and manned to provide two men to operate from the roof and two men for inside the structure.

The responding apparatus carries a variety of extinguishers and a chimney kit of useful special items:

- A 5-gallon metal pail (or metal bushel basket) for hot embers and clean-up.
- Chimney cleaning chain and weights. (See "GISMO")
- Chimney mirror (to check flue clearance from clean-out door).
- Asbestos mitt or equivalent.
- Coffee can of baking soda or BC type dry chemical.
- Child's sand shovel (or fireplace shovel).

ABC dry chemical is the agent preferred by the Levant Fire Department. They have used 5 to 20 pounds of chemical in handling each of over 50 fires. Used on flue fires, the extinguishant is discharged at full velocity up the flue from the basement clean-out door, or other access point, until some chemical is backing

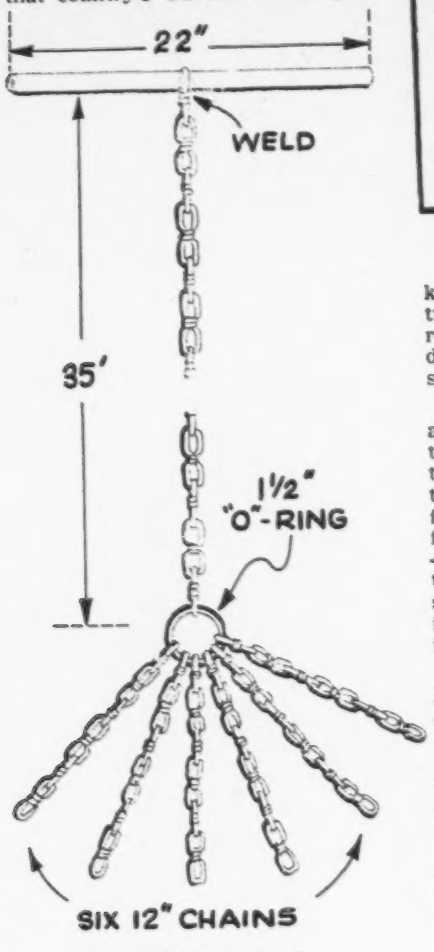
out the point of application. It may be necessary to repeat the application.

Ordinary dry chemical (Bic) is used inside the stove if it is necessary to quench that fire. ABC dry chemical should not be used as it is corrosive and has a potential to create a sticky formation in the inside surfaces of the heating appliance, according to Curtis.

The Mankato Fire Department uses Chimfex, flare-like extinguishing devices, for putting out chimney fires. They are available from a number of fire department supply dealers. They are also sold to the public.

Carl Wendt, Mankato fire inspector, warns that people should call the fire department first, before making any attempt at extinguishment. He also utilized the Mankato Free Press to offer fire prevention suggestions for users of wood-burning units.

The Fireplace Shoppe in Mankato markets a product it recommends for regular chimney maintenance. The powdered chemical is manufactured in Canada, where it carries that country's UL seal. It is sprinkled on a low fire or coals, about twice a week, and is said to form a reaction with creosote, causing it to drop down the chimney or go out the stack.



FLUE cleaning "Gismo"

The Bancroft Colorado Fire Department launched a campaign to stop chimney fires. The department purchased the "Warm up to Wood Safely" Media Kit (developed by the Montana Fire Services Training School, under an FEMA/USFA grant). The kit was used to develop local radio and television public service announcements about creosote build-up and proper cleaning of fireplaces and other devices.

At the same time, the fire department made arrangements to lease chimney sweep equipment for loan to the public without charge.

The advertisements encouraged more than 150 homeowners in the Bancroft fire district, who borrowed the equipment, to sweep away the fire-causing creosote.

The department attributes a reduction of fires in the community to Bancroft's campaign efforts, although the winter was somewhat mild. The campaign will be used again next winter and a comparison will be made.

According to *Fire Control Digest*, the total cost to the fire department for the campaign materials and the leasing of six sets of chimney sweep equipment was $200.

The basic procedure for handling a chimney fire remains the same as that used years ago. The fire is much the same as a partition fire except that, hopefully, it will remain confined by the flue lining. As with all fires, the first step should be size-up —determining location and intensity. Flues are not designed to withstand the intense heat of a creosote fire over long periods, so letting the fire burn out is not advised.

While extinguishment goes on, all exposures should be carefully checked. Walls in proximity to exposed or enclosed flues should be examined. If too hot to touch, the wall should be opened. Attics and other enclosed spaces call for special attention. The condition of visible portions of the chimney passing through the attic calls for a close check. Unused flue holes, covered by a thimble or by mortar or plaster, should be searched for. If found they should be examined for possible fire extension. Such openings should be plugged with mortar material to the full thickness of the chimney wall.

Some fire departments use water to extinguish chimney fires. This method can be effective only if the water is carefully and properly applied. If not there is a real danger that the flue lining will crack and compound the hazard if another chimney fire occurs.

If water is used it should be applied sparingly in the form of a fine spray, preferably under high pressure, from beneath the fire at the chimney clean-out. This method provides for the generation of steam which restricts oxygen and cools the burning creosote. As with the use of an ABC extinguisher, the fuel residue should break free of the flue walls and drop to the base of the chimney.

CHIMNEY sweeping brushes.

Water should not be used to cool or put out the fire in the heating unit. Not only will this cause cracking or distortion of metal or ceramic interiors but it can cause violent steam generation that can literally blow the fire embers back into the room.

The use of solid water streams introduced through the top of the chimney is very likely to crack the flue lining while being of questionable value in putting out the fire.

Some fires may resist all efforts to extinguish them from the clean-out or chimney base. This is particularly true where there is very extensive creosote build-up. In these

chimneys . . .

instances it may be necessary to dislodge the creosote by use of a chimney cleaning device worked from the roof. An iron ball and chain, prods made of pipe sections or the "GISMO" previously mentioned are variations used by some departments.

Where such tools are used the burning material falls to the chimney base where it can be extinguished. Or it can be shoveled into a pail or metal basket and extinguished outdoors.

In every case of a chimney fire, the householder should be advised to secure the services of a professional chimney cleaner and use those services regularly.

Extinguishing chimney fires is a messy operation, even where the greatest care is exercised. Clean-up and overhaul are of extreme importance to a fire department's reputation as the householder almost always is a close observer. Most of the mess can be avoided by being prepared for it. Salvage covers should be used to protect floors and rugs. Care should be taken when removing soot and fuel residues.

If the fire is in a mortar chimney without a basement clean-out, or in a pre-fab metal chimney which vents a free-standing stove, the extinguishment and clean-up problems are compounded. In these instances generous use of salvage covers and extra care are most important considerations.

Our readers are urged to send in methods they use in combating chimney fires—or descriptions of appliances or equipment they have found useful.

Wood — Nature's Housewarming Gift.

Use It Wisely.

WOOD HEATING ALLIANCE

111 East Wacker Drive
Chicago, Illinois 60601

1101 Connecticut Ave. N.W.
Washington, D.C. 20036

Wood— Nature's Housewarming Gift. Use It Wisely.

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AMERICA REDISCOVERS WOOD FOR HOME HEATING

Less than a hundred and fifty years ago, wood was our most widely used fuel. It supplied over 90% of our nation's energy. Wood began to lose its popularity when coal, gas and oil became our country's main energy sources.

Fossil fuel shortages and ever-increasing prices have revived an interest in wood for fuel. Although fireplaces have always been a popular home feature for their charm, today's new fireplace designs provide energy efficiency as well as beauty.

Wood-stove interest has boomed especially since the 1973 Arab oil embargo. And today Americans have a much greater choice of styles and designs.

WOOD GROWS TO MEET OUR DEMAND

Wood is our nation's primary renewable fuel. Most experts believe that our forests contain enough poorly used or wasted material to supply wood for home heating at low, stable prices ... *indefinitely*. Our forests are full of trees that are poorly formed, diseased or of little use for wood products. These trees compete for sunlight, food and water with valuable crop trees. Diseased trees pose a health problem to nearby healthy trees. Fallen and dead trees increase the chance of wildfire and insect problems. Yet this wood is valuable as firewood to heat our homes. In fact, choosing the right wood to cut and burn for firewood today can actually make *more* wood available for tomorrow.

SELECTING FIREWOOD

Contact your state forestry office for help in identifying appropriate firewood. Be sure that you get permission to cut or remove trees from property other than your own.

Firewood can also be obtained from dumps and landfills. But again, be sure you have the approval of the landfill authority. As much as 30% of the debris in some town and city landfills consists of potential firewood, such as logs, limbs and tops of trees felled by storms.

Industrial wood scraps are also available for firewood. Sawmills and lumber companies often offer wood leftovers for this purpose at a minimum cost to reduce the burden of hauling and burning the scraps themselves.

Free firewood may be available from the national forest. Check with your nearest Forest Service District Ranger for information. State Foresters, County Extension Agents and county and city foresters can also provide information on firewood sources.

BUYING FIREWOOD

The most commonly known term for firewood purchase is the "cord." A full or standard cord is a stacked pile of logs 8 feet long, 4 feet high and 4 feet deep. Because most people do not burn 4-foot logs, wood is often sold by the "face" cord. This is a woodpile 8 feet long, 4 feet high. The depth of the face cord depends on the length of the logs. This could be 12, 16 or 24 inches. (A 16-inch depth face cord is 1/3 of a full cord.)

A "truckload" is not a standard measure and depends on the size of the dealer's truck. A standard pickup holds only about 1/3 to 1/2 of a full cord.

THE BEST FIREWOOD

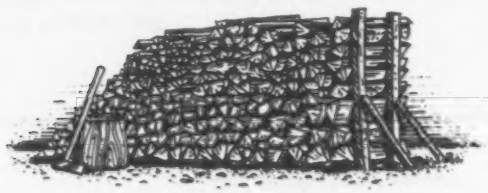
Softwoods like pine, spruce and fir are less expensive than hardwoods. Softwoods are easier to ignite and burn rapidly with a hot flame. If you want a quick-warming fire or a fire that will burn quickly, softwoods are your best choice.

Hardwoods, such as ash, beech, birch, maple and oak, provide a longer-lasting fire with a shorter flame.

Wood from fruit and nut trees like apple, cherry, hickory and pecan can add a nice aroma — as their smoke usually is similar to the fragrance of the tree's fruit.

A mixture of softwoods and hardwoods is the best choice for a fire that is both easily ignited and long lasting.

TO GET THE MOST FROM YOUR HEATING DOLLAR, ALWAYS BURN DRY, SEASONED WOOD.



STORING FIREWOOD

Wood should be seasoned at least six months after it has been cut. A year is better, especially in humid areas. Burning green wood wastes energy by producing a steam that escapes quickly up the chimney. If you buy your wood in the spring or early summer, you can help guarantee proper seasoning and possibly benefit from off-season prices.

Firewood should be kept dry. You should store it undercover and stack it so air can flow freely between the pieces. This means keeping it off the ground.

Wood should also be stored outside, away from the house, as it can be a home for insects. You'll want to be sure to check it carefully before bringing into your home.

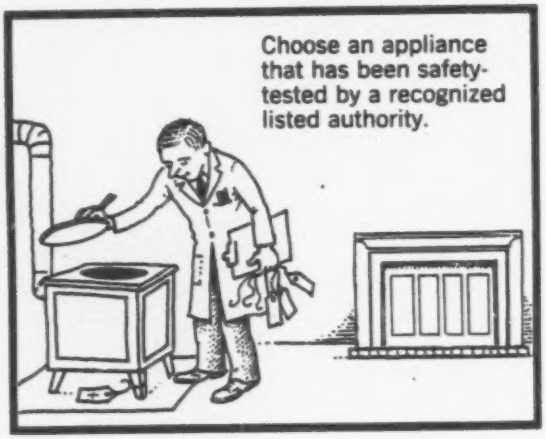
RATINGS FOR FIREWOODS* TYPE	RELATIVE AMOUNT OF HEAT	EASY TO IGNITE?	EASY TO SPLIT?	HEAVY SMOKE?	POPS/THROWS SPARKS?	GENERAL COMMENTS
HARDWOODS Apple, ash, beech, birch, dogwood, hard maple, hickory, locust, mesquite, oaks, Pacific madrone, pecan	High	No	Medium	Little	Yes, when poked	Excellent
Alder, cherry, soft maple, walnut	Medium	Medium	Yes	Little	Little	Good
Elm, gum, sycamore	Medium	Medium	No	Medium	Little	Fair — too much water when green
Aspen, basswood, cottonwood, yellow-poplar	Low	Yes	Yes	Medium	Little	Fair but good for kindling
SOFTWOODS Douglas fir, southern yellow pine	Medium	Yes	Yes	Yes	Little	Good, but smokes
Cypress, redwood	Low	Yes	Yes	Medium	Little	Fair
Eastern and western red cedar, white cedar	Low	Yes	Yes	Medium	Yes	Fair, excellent for kindling
Eastern white pine, ponderosa pine, sugar pine, western white pine, true firs	Low	Yes	Yes	Medium	Little	Fair, good kindling
Larch, tamarack	Medium	Yes	Yes	Yes	Yes	Fair
Spruce	Low	Yes	Yes	Medium	Yes	Fair, but good kindling when dry

*From USDA Forest Service

CHOOSING A WOOD-BURNING APPLIANCE

There is a wide variety of efficient and attractive wood-burning devices on the market today. The best choice for you depends on many factors. The size of your house, the layout of the rooms you plan to heat, and your priorities about convenience and charm are only a few of many factors that you may want to consider when purchasing a wood-burner. We suggest, however, that you use three general criteria as a minimum when buying one of today's modern and energy-saving wood or coal-burning devices.

First and foremost, be sure you choose a safe stove, fireplace or fireplace insert. Most popular brands have been safety tested and bear labels from a recognized authority such as Underwriters Laboratories, Inc., or a building code group. Avoid "garage sale specials" or antique stoves — even a small undetected flaw can cause a house fire.



Second, consider your heating needs and the heat output of the appliance you want to buy. (Heat output is usually rated in BTUs per hour.) This means having a good idea about the area you want to heat.

Wood-burning devices usually allow you to utilize a concept that heating experts are finding can be very important in reducing energy costs — zone heating. In other words, part of your home can be allowed to cool down somewhat when not in use. For this reason, many people who are very conscious of heating costs are deciding to go with two or more smaller wood burners instead of one larger unit. Whichever route you choose, however, you will benefit from talking to an informed dealer about the heating requirements for *your* room(s), in *your* part of the country.

Third, you should consider the efficiency of a wood burner before you buy. The amount of wood you will burn to produce the heat you need will depend on the efficiency of the appliance that you select. Because efficiency can change with the type of wood you burn, how cold or windy it is outside, and many other factors, the industry has developed standardized tests to put all efficiency ratings on an equal basis. Look for a unit that has been certified by the Wood Heating Alliance to be certain that the heat outputs and efficiencies for different appliances can be compared with one another.

INSTALLATION

Safe installation is most crucial to wood-heating and solid-fuel apliance owners. Statistics show that 75% or more of wood-burning-related fires are due to improper installation.

You can heat safely with wood if you first follow a few safety measures. (See the glossary for types of wood-heating products and their definitions.)

CODES: Check with local fire and building officials to be sure your installation will comply with applicable codes. Most codes require that you install wood burners according to manufacturer's instructions — be sure you get written instructions when you buy.

continued on next page

INSTALLATION . . .

Check local fire and building codes—comply with installation regulations.
Follow manufacturer's instructions to the letter.

MANUFACTURER'S INSTRUCTIONS: Every product you consider should come with clear, detailed instructions for installation and use. Installation requirements can vary between models, so be sure you follow to the letter manufacturer's instructions for the model you select.

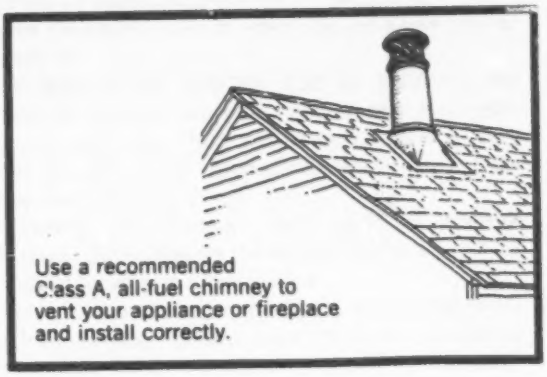
FIRE INSURANCE: Check with your fire insurance company for possible coverage requirements.

HEAT SHIELDS: Recommended clearances for stoves and free-standing fireplaces can be reduced if you utilize approved wall and ceiling shields. Underwriters Laboratories, Inc. has begun testing and listing wall shields for use with certain stoves and fireplaces. Most codes contain instructions for reducing clearances that are based on standards developed by the National Fire Protection Association.

FLOORS: All floors on which stoves or fireplaces (except zero-clearance) are placed should be protected. Concrete is an exception. Be sure to follow manufacturer's instructions for material recommendations, installation and area needed for adequate hearth and side protection.

STOVE PIPES: Always use stove pipe, not galvanized steel ducts, to vent your wood stove to the chimney. The stove pipe you select should be of the recommended gauge metal, and the proper diameter and length. Avoid more than one right angle turn between the stove and chimney. Make sure you adhere to recommended clearance standards. Never vent a single-wall connector pipe through combustible materials. Outside masonry or factory-built chimneys should be used to vent solid-fuel appliances.

CHIMNEYS: Prefabricated chimneys are easier to erect than masonry ones and less expensive in labor costs. If you use a prefabricated chimney you must choose a recommended Class A, all-fuel chimney to vent your appliance or fireplace and take care that installation exactly follows manufacturer's instructions and clearance standards. If you want to utilize an existing masonry chimney, be sure you first have it inspected and cleaned if necessary. (See chimney maintenance and chimney fires). All chimneys should utilize spark arresters. Trees should be trimmed back at least 10 feet from the chimney area.


Use a recommended Class A, all-fuel chimney to vent your appliance or fireplace and install correctly.

NOTE: If a stove or fireplace has been safety tested as a unit, including venting materials, substitution of parts or installation recommendations will affect the safety-test listing and possibly the warranty of the unit. For safety reasons, don't substitute or leave out any parts.

WOOD-HEATING APPLIANCE USE

Once your appliance or fireplace is correctly installed, you can enjoy a safe, wood-heating season by taking care to follow safe use and maintenance tips.

PROBABLY THE MOST IMPORTANT CONCERN TO REMEMBER IS TO KEEP ALL COMBUSTIBLES AWAY FROM THE FIRE OR HOT STOVE. This includes draperies, furniture, newspapers, flammable liquids — anything that could ignite from a flying spark or intense heat radiation.

In addition: *Fireplaces should be equipped with spark guards such as a mesh curtain or free-standing screen. Glass doors provide the best protection.

*Before lighting a fire in the fireplace, make sure the damper is open all the way. Counter downdrafts, which can cause smoke, by lighting a rolled newspaper and holding it up toward the flue. Then make sure the damper is open as long as embers continue to burn.

*With wood-burning stoves that use a damper, be sure to open the damper before opening the firebox to check the fire or add more wood. This lets accumulated gases exit up the chimney rather than possibly igniting or exploding with the sudden rush of air into the firebox.

*Never start a fire with a flammable liquid. Don't burn trash, colored papers or plastics as they could overload your appliance and/or give off toxic fumes.

*Burn small, hot fires as opposed to large, smokey ones to maximize efficiency and cut down on creosote.

*Dispose of ashes safely — in a metal container with a lid.

*Educate your family on the safe use of your stove or fireplace. Never leave small children unattended around a fire or hot stove.

*Have your chimney cleaned and inspected regularly. (See chimney and stove pipe care and maintenance.)

APPLIANCE, CHIMNEY, STOVE PIPE CARE/MAINTENANCE

It is essential that you have your chimney inspected and cleaned every year. Wood-stove connectors should be examined regularly — every 2 to 4 weeks when the stove is new, or when you get a new load of firewood.

WOOD-STOVE CHECKS: Start by examining the chimney connector (the pipe that goes from your stove to your chimney). There should be 3 screws at each joint that should be fastened securely to prevent the pipe from vibrating loose.

Remove the connector and check for creosote deposits. Depending on the density, 1/8 to 1/4 inch of buildup constitutes a fire hazard.

Now, inspect the chimney. Again, look for 1/8 to 1/4 inch of creosote buildup. Also, check for cracked or missing tile liners in a masonry chimney, or ripples or white discolorations in an all-fuel, Class A, factory-built chimney.

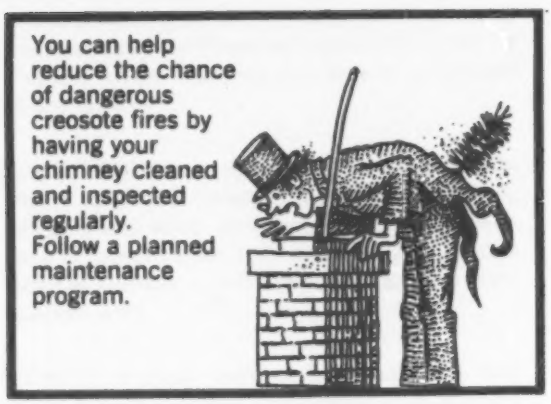
If your chimney connector is difficult to remove for inspection, a simple test can be performed. Tap the pipe with a screwdriver. If you hear a hollow, metal ring, it is *probably* relatively free of creosote, but if it responds with a dull "thud," you'll know it is time for cleaning.

CARE/MAINTENANCE . . .

FIREPLACE CHECKS: Inspecting a fireplace and chimney is not quite as difficult, but just as important. Start by examining your firebox. Look for loose mortar or bricks.

Next, get a flashlight to inspect the throat assembly and damper at the top of the firebox for creosote buildup. If you see rust, you need a chimney bonnet to eliminate water running down the flue, rusting out the damper and throat assembly and creating cracked mortar and costly repairs.

Open the damper completely and inspect the walls of the smoke chamber and flue tiles. Again, 1/8 — 1/4 inch of creosote is a fire hazard.


You can help reduce the chance of dangerous creosote fires by having your chimney cleaned and inspected regularly. Follow a planned maintenance program.

CLEANING: If you don't want to inspect and clean your stove or fireplace yourself, professional chimney sweeps are available. Ask your reputable dealer for referrals. Then, be prepared to ask the chimney sweep a few questions. "Will they make a mess in your home?" Today's professionals will own an industrial vacuum to control dust. They should also have an assortment of steel wire brushes to scrape off creosote. A vacuum alone will not do a good job.

"How long will it take?" A thorough cleaning job will take at least one hour in most cases.

"Do they have insurance?" This is for your protection as well as theirs.

CHIMNEY FIRES

Chimney fires can occur when a hot fire in your stove or fireplace ignites a buildup of creosote. Some chimney fires can occur without being noticed, but can result in chimney damage and serious problems. Regular chimney inspection and cleaning are therefore a must. It is a wise idea to install smoke detectors and keep recommended fire extinguishers on hand.

Should a chimney fire occur, keep in mind that it takes movement of air to keep it going.

PUTTING OUT CHIMNEY FIRES

Airtight stoves: First, put out the stove fire with a dry chemical, like baking soda, or a recommended fire extinguisher. Avoid using water as the resulting steam can burn your hands.

Close all the air controls and the door. If the chimney fire is still going or the chimney is not cool enough to touch, call your local fire department. If the fire does go out, don't open the door or damper for at least 30 minutes, or the fire will start up again.

Fireplaces: Put out the fire in the firebox with a recommended dry chemical. If using an extinguisher, try shooting it up the chimney. If the chimney fire is still going, call the fire department.

IF YOU'VE HAD A CHIMNEY FIRE, BE SURE YOU HAVE YOUR CHIMNEY CHECKED FOR DAMAGE BEFORE USING YOUR STOVE OR FIREPLACE AGAIN.

GLOSSARY

AIRTIGHT STOVE: a generic term for any stove having tight joints and controlled drafts. Most modern stoves are airtight while antique stoves and their reproductions usually are not.

CATALYTIC STOVE: is a woodburning stove that includes a catalytic combustor. The purpose of the combustor is to lower the ignition point of hydrocarbon gases evolved from the wood so that they burn like a fuel instead of going up the chimney.

CLEARANCE STANDARD: is a required distance from a heat-producing surface to nearby construction or combustibles. Manufacturer's instructions will indicate minimum clearance standards for installation of the appliance.

COMBUSTIBLES: are materials which will burn if subjected to fire or intense heat. Concrete, brick, masonry and stone are noncombustibles. A sheetrock or wood-framed wall covered by a noncombustible material is still considered to be a combustible wall.

CREOSOTE: is black, tarry or flaky substance that forms in chimneys from the condensation of wood gases not burned in the combustion process. Accumulated in large amounts, it could become fuel for a chimney fire.

DAMPER: A steel or cast iron movable plate used to regulate the draft in the flue or to close the flue.

FACE CORD OF WOOD: is a pile 8 feet long, 4 feet high and usually 12, 16 or 24 inches deep (depending on length of wood.)

FACTORY-BUILT OR ENGINEERED FIREPLACE: is an integral fire chamber and chimney assembly, usually listed or approved by a recognized safety-testing laboratory, consisting entirely of factory-made parts for unit or component assembly without requiring field construction.

FIRE CHAMBER: The space in which the fire burns. It is lined with refractory, firebrick or sometimes a steel fireplace form. Also called a firebox.

FIREPLACE INSERT: is an appliance that increases the efficiency of an existing masonry fireplace by converting it from a radiant heater to a convective one. They are not recommended for factory-built fireplaces unless approved by the manufacturer.

FLUE: The insulated chimney conduit which carries flue gases from the appliance to the outdoors, constructed of terra cotta or fire clay in masonry chimneys and corrosion-resistant stainless or coated steel in factory-built chimneys.

FREE-STANDING FIREPLACE: is any appliance designed for heating and having the ability to be used as an open fireplace. It does not require additional construction for installation other than a normal flue connection.

FULL OR STANDARD WOOD CORD: is a pile 8 feet long, 4 feet high and 4 feet deep.

HEAT-CIRCULATING FIREPLACE: is usually a factory-built model that distributes useful amounts of convected heat to a home. Some units increase heating efficiency through use of fans and glass doors.

HEAT SHIELD: is a protective unit consisting of various materials that are usually anchored one inch out from the wall or ceiling to allow air to flow freely. The heat shield allows wood stoves to be placed closer to a combustible material.

SMOKE CHAMBER: The transition area which connects the damper or throat with the flue and facilitates the flow of gases into the chimney.

THIMBLE: A flue or vent part constructed of terra cotta or corrosion-resistant metal, designed to provide a safe connection or passageway between a smoke-pipe or type B vent to a chimney through a combustible wall. Also, the horizontal terra cotta connection to a masonry chimney.

continued on next page

GLOSSARY . . .

THROAT: A slot-like opening above the firebox in a fireplace where flame, smoke and combustion gases pass into a smoke chamber. The damper can usually be found in or may be part of the throat.

ZERO-CLEARANCE FIREPLACE: is a factory-built model where the outermost layer stays cool to touch even with a hot fire burning in the firebox. It can be safely installed in direct contact with wood walls and floors. Not all factory-built fireplaces are zero-clearance, however.

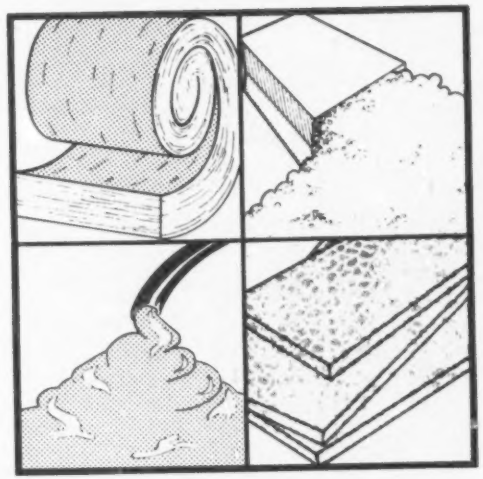
This booklet was published by the Wood Heating Alliance with input from the USDA Forest Service. WHA is a non-profit, international organization serving the fireplace, wood-stove, residential coal- and wood-burning industry. The WHA is dedicated to the advancement of residential coal and wood heating and their safe and efficient use. Its membership includes manufacturers, distributors, retailers, chimney sweeps, educators, ecologists, environmentalists, foresters and other industry-supporting individuals.

WHA WOOD HEATING ALLIANCE

First printing 1981

Making $ense out of Insulation

The lines are drawn in the thermal equivalent of war: the homeowner on one side, the ravages of winter cold and summer heat on the other. Who will triumph may depend on who wins the battle of insulation.



Insulating your home is good strategy for controlling energy costs -- but before investing your money in insulation, take a close look at your home's insulation requirements and how best to meet them.

BE ALERT TO AIR LEAKAGE

Insulation is not the entire answer to conserving energy. The most effective insulation job cannot protect your home from air leakage through unsealed doors, windows and cracks.

Weatherstrip and caulk windows and doors before installing insulation.

Install storm windows. The pocket of air formed between windows and storm windows acts as a layer of insulation.

DECIDING WHERE TO INSULATE

It may not prove economical to insulate your entire home. Target the vital locations:

The attic is where most heat loss occurs, because warmed air rises. If the attic is finished and occupied, insulate under the roof to separate the room from the outdoors. If it's unheated, put insulation under the attic floor.

The basement or crawl space, if not kept within ten degrees of your home's temperature, should be insulated at the ceiling. Hot air ducts or water pipes crossing colder areas should also be insulated. If the basement is kept near the temperature of the rest of the house, place insulation around the perimeter walls.

Exterior walls should be insulated where possible at reasonable price.

CHOOSING BATTS, BLANKETS, BOARDS OR BAGS

Insulation comes in several forms. Each is installed differently, making it suitable for specific purposes and locations within your home:

Batts or blankets are rolls of insulating material cut into four- or six-foot lengths, often installed between floor joists or wall studs.

Loose fill insulation comes in bags and is poured or blown into place. It is used in walls and in foundations.

Rigid insulation boards can be glued, stapled or nailed to walls and studs.

Foam insulation is blown into walls; its installation may be costly in existing homes.

MEASURING EFFICIENCY BY R-VALUE

Just covering walls with any thickness of insulation may not be sufficient for energy control:

R-values measure the thermal efficiency of insulating materials by calculating resistance to the passage of heat. The higher the R-value, the better the insulating value. R-value is generally measured in terms of R-value per inch of thickness; by using this standard you can estimate the R-value of existing insulation. R-value is additive, so if you install a product rated R-19 on top of insulation rated R-11, the total R-value amounts to R-30. It may be less if the bottom layer becomes compressed. Insulation with high R-value is more effective in limited space; insulation with lower R-value can be a better value if space is available to pile it high.

Check labels; as of November 1979 the Federal Trade Commission requires R-value to be stated on packaging, along with information on the area and depth which can be covered while achieving the stated R-value.

PLAYING IT SAFE

Choice and handling of various insulation materials pose some safety challenges:

Flammability must be considered when choosing insulation. Nothing is fireproof, including insulating materials. Check the flammability rating, based on a 0 to 100, non-flammable to highly flammable, scale. Insulating materials are rated on three factors: flame spread or how quickly the material burns, fuel contribution or how much it contributes to an existing fire, and smoke development. A satisfactory rating is under 25; if any product rates above 50 on any characteristic, it should be used only if covered with fire-resistant material.

Vents must be left uncovered when installing insulation. Vents in the attic, for example, lower the temperature during the summer and allow moisture to escape during the winter.

Vapor barriers protect insulation from moisture, which decreases its R-value. Some types of insulation, like batts and blankets, have built-in vapor barriers; for others a barrier must be purchased and installed separately. Vapor barriers are generally composed of heavy kraft paper, metal foil or plastic.

To minimize fire hazards allow clearance of at least three inches around heat sources like electrical fixtures, light bulbs, and furnace and fireplace flues when installing insulation.

Corrosion of metal fixtures or building structures may occur from insulation treated with certain flame-retardant chemicals, primarily magnesium sulfate or aluminum sulfate.

Take safety precautions if installing insulation yourself. Protective eye goggles, gloves, long-sleeved shirts and long slacks, hair covering and a breathing mask (available from a

The Big Six in Insulation Materials

R-Value: The higher the R-value, the higher the insulating ability. Values shown are per square inch of thickness.
*Flammability ratings. Ratings below 25 are considered satisfactory.

	R-Value	Flammability	Toxic Fumes	Corrosion	Moisture Absorption	Shrinkage Settling	Installation Considerations
Rockwool	3.0 to 3.5 per inch	Less than 25*	None	None	None, but a vapor barrier is recommended for comfort	Minimal	Do not have fibers exposed, may be irritating
Fiberglass	2.8 to 3.4 per inch	Relatively low	None	None	None, but a vapor barrier is recommended for comfort	Some settling with loose fill fiberglass	May cause skin and respiratory problems if exposed. Should be covered after insulation
Cellulose	3.2 to 4.0 per inch	Treated with fire retardants, ratings of 25 or less recommended	None	A problem only if treated with the fire retardants aluminum or magnesium sulfate and installed near metal pipes or wiring	Vapor barrier recommended	Not a problem unless cellulose has absorbed excessive moisture	Wet cellulose has an R-value. Fire retardants may leach out. Make sure that vapor barriers are used, such as vinyl paint on walls or vinyl wallpaper
Foam	4.7 to 5.5 per inch. Shrinkage may reduce foam to 2.5	Low	Use only in closed, properly vented exterior wall cavities and sealed to inside with vapor & fume resistant paints	None	Acts as its own vapor barrier, use vinyl paints and or wallpaper for interior walls	1 to 3 percent over 2 year period	Do not use outdated canisters. Do not expose to high heat (80 -)
Vermiculite	2.13 per inch	Lowest of all insulation materials	None	None	Not a problem	Will settle after installation	Heavy—generally not used for residential ceilings
Rigid Boards	3.5 to 6.25 per inch	High—should be covered with at least ½ inch of gypsum board or other fire-resistant material	May produce toxic fumes, cover with ½ inch gypsum board	None	Not a problem	None	Check with local building officials for covering requirements

medical supply or hardware store) are wise. Don't smoke; keep insulating materials away from heat sources as well.

MATCHING PRODUCT TO CONDITIONS

Now you've figured out where you'll insulate and some factors influencing your choice of materials, you're able to choose the insulation with the right characteristics for your house:

Rock wool, also known as mineral wool or gypsum rock, comes in blankets, batts or loose to be poured or blown into place. Rock wool itself poses little flammability problem but its paper vapor barriers are flammable.

Fiberglass insulation is available as loose fill or compressed into batts and blankets; like rock wool, it is not highly flammable but its vapor barrier may be.

Cellulose insulation is usually packaged as loose fill to be poured or blown into place. Cellulose is flammable and should be treated with the proper fire-resistant chemicals.

Urea formaldehyde or residential foam insulation is forced into exterior wall cavities and allowed to cure; these products can meet acceptable levels of flammability. If not properly mixed and cured, they may emit toxic fumes.

Plastic rigid board insulation is available in both flame-resistant and non-treated forms. If ignited, the treated form may emit smoke and toxic gas. Polyurethane or polystyrene insulation is safe if enclosed in a flame- and heat-retardant material like gypsum board.

Vermiculite is a gravel-like substance packaged as loose fill and generally used in cavities of masonry block.

PROFITING FROM INSULATION

Properly chosen insulation will pay for itself in energy savings within three to five years. Choosing wisely, however, includes investigating several questions:

Before hiring a contractor, obtain competitive cost estimates, talk to previous customers, and verify the contractor's reliability with your local Better Business Bureau or consumer affairs office.

Use income tax credits. The National Energy Act offers a federal income tax credit; similar local or state incentives may be available in your area.

Now you're prepared to insulate your home -- and yourself -- against rising energy costs.

C-128-1179

Alliance

Alliance of American Insurers
20 North Wacker Drive
Chicago, Illinois 60606

Working to Make Insurance Work Better

Auto Facts

Rx FOR NO STARTS: CAR CARE

AUTHORITIES TELL US OUR CARS ARE IN THE WORST SHAPE EVER. WHY? BECAUSE MONEY'S BEEN SO TIGHT. A SEVERE WINTER COULD MEAN MILLIONS OF CARS FAILING TO START. THE BACK-LOG OF CALLS FOR HELP COULD MEAN LONG WAITS FOR THE TOW TRUCK.

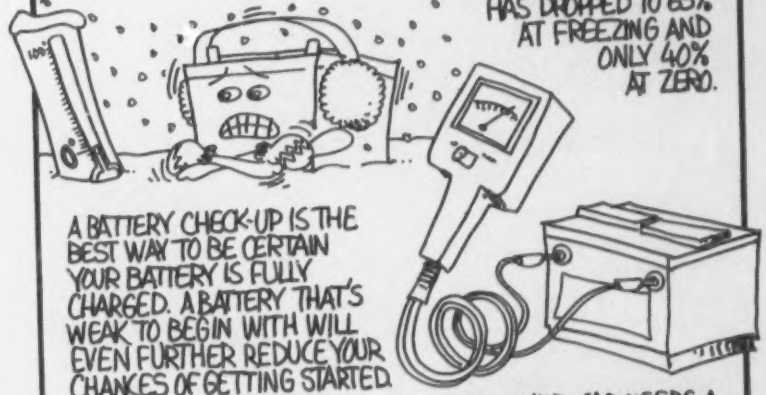
BEFORE A NO-START RUINS YOUR DAY, GET YOUR CAR READY FOR WINTER WITH A TUNE-UP AND ELECTRICAL CHECK.

CCC Car Care Council

Auto Facts

FIGHT COLD SYMPTOMS

EVER WONDER WHY YOUR CAR IS SO SLOW TO START IN COLD WEATHER? ONE REASON IS THAT YOUR BATTERY GROWS WEAKER AS THE THERMOMETER DROPS. FULL POWER AT 80° HAS DROPPED TO 65% AT FREEZING AND ONLY 40% AT ZERO.



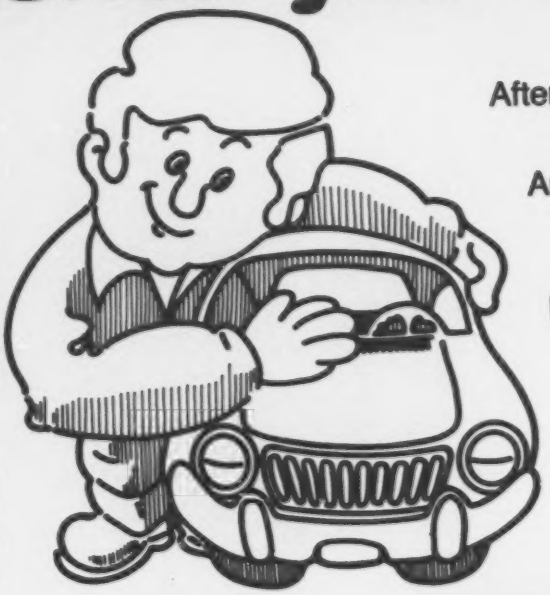
A BATTERY CHECK-UP IS THE BEST WAY TO BE CERTAIN YOUR BATTERY IS FULLY CHARGED. A BATTERY THAT'S WEAK TO BEGIN WITH WILL EVEN FURTHER REDUCE YOUR CHANCES OF GETTING STARTED.

AND IF YOUR CAR NEEDS A TUNE-UP YOU'RE REALLY ASKING FOR STARTING TROUBLE. THE CAR CARE COUNCIL ADVISES REPLACING A WORN BATTERY AND HAVING YOUR ENGINE TUNED BEFORE THE COLD WEATHER SETS IN.

CCC Car Care Council

Before winter stops you cold...

Show your car you care.



After all these years winter should come as a surprise to no one. But it does.

And every year our roads get clogged with cars that are not tuned in to winter's snow and freezing temperatures.

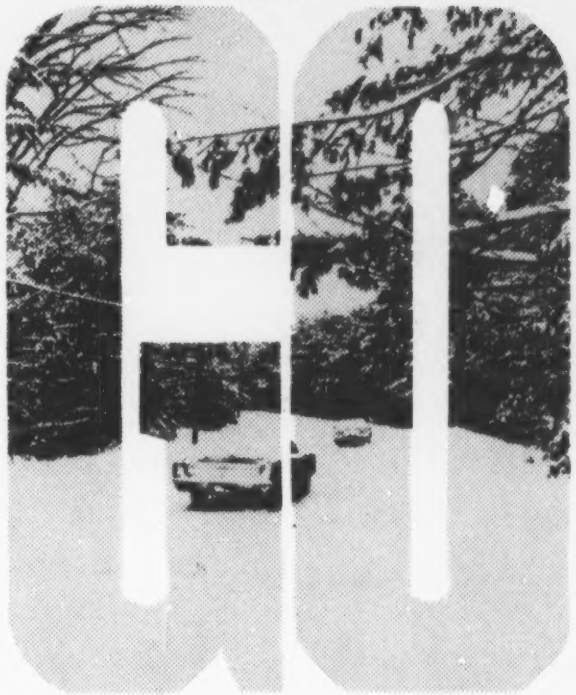
Don't let this be your winter of discontent. Take your car to its favorite mechanic now and have it tuned up for winter, so you won't be stuck out in the cold.

After all, this is what regular car care is all about.

car care council

17000 EXECUTIVE PLAZA DRIVE, DEARBORN, MICHIGAN 48126

THE COMPLETE GUIDE OF HOW TO



ON ICE AND SNOW

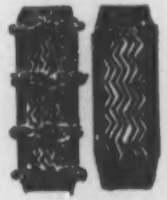
© American Automobile Association 1981

PREFACE

How To Go On Ice and Snow presents well illustrated, easy-to-read information that will aid you in becoming a safe and efficient driver despite winter's adverse weather conditions. This pamphlet contains information on vehicle and driver preparation, winter driving techniques—starting, tracking and following, steering and stopping—and additional hints and precautions helpful to both front- and rear-wheel drive vehicle owners.

To derive the greatest benefit from this pamphlet, it is suggested that you read beforehand the procedures and techniques described, then practice in a safe, secluded area.

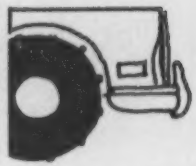
3. Tires



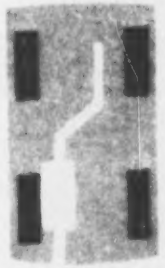
Tires are the only contact your vehicle has with the roadway. Make certain they are in good condition. Snow tires are recommended, but chains provide the best starting and stopping performance in severe snow and on icy surfaces. Radial tires are not snow tires unless they have a snow tread configuration and are marked "M&S" (Mud & Snow). Added traction can be achieved by mounting snow tires on all four wheels. If you live in a region that receives light to moderate snowfall, then a set of all-season radials might be the answer to your winter driving needs. Snow tires should have 4 psi more pressure than regular tires, but should not exceed the maximum pressure molded into the tire sidewall.

FRONT-WHEEL DRIVE:

Although Front-wheel drive vehicles have superior traction, they should still be equipped with snow tires. If the use of chains is necessary, they *should* be used on all four wheels.



4. The Exhaust System



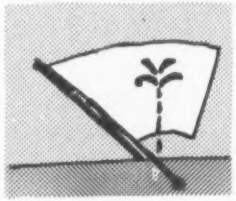
Have a mechanic check your exhaust system for leaks in order to minimize the chances of carbon monoxide poisoning. Carbon monoxide is odorless, very hard to detect, and it can kill. If your car is stuck in the snow and you have the engine and heater running, open a window slightly and clear snow away from the exhaust pipe.

5. Heating and Cooling System

Check your radiator and hoses for leaks and cracks. In addition, add a sufficient amount of antifreeze to your vehicle for the coldest weather (at least -30°F). Test the heater and defroster for proper operation.

6. Windshield Wipers and Washer

Wipers should be checked for proper functioning. Blades that streak the windshield should be replaced. The washer reservoir bottle should be filled with a antifreeze washer solvent.



7. Winter Driving Kit

The following items carried in your automobile will be invaluable should an emergency develop:

- **Tire Chains**
- **Small snow shovel**
- **Extra clothing**
- **Traction mats**
- **Ice scraper**
- **Booster cables**
- **Warning devices (flares or triangles)**
- **Small bag of abrasive material (sand, salt or kitty litter)**
- **Snow brush**
- **Flashlight**
- **Cloth or roll of paper towels**
- **Blanket**

PREPARING THE DRIVER

To minimize the hazards associated with winter driving, both the vehicle and the driver must be prepared in advance. For the driver this means approaching winter driving with **the right frame of mind**—"always drive at a speed that matches the prevailing visibility, traffic and road conditions."

Selecting clothing that provides warmth, comfort and freedom of movement is no easy task. Heavy garments and gloves offer warmth when outside, but after a few minutes in the car, after the engine has warmed up, they should be removed for comfort and freedom of movement. Stop the vehicle in a safe spot to remove any outdoor clothing rather than compounding a risky situation by struggling out of a heavy coat while driving. It is neither healthy nor safe to under- or overdress before or while driving; among other things, your ability to concentrate is diminished. A zip fasten, lined jacket and a pair of thin leather gloves are ideal for winter motoring. They give appropriate warmth, comfort and freedom of movement both inside and outside the vehicle with minimal adjustment.

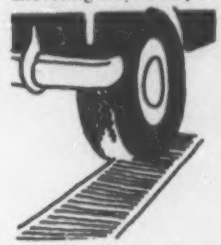
To see and be seen by others requires the driver to clean all snow and ice from the **entire** car—hood, roof, trunk, lights and windows. Snow left on any of these areas increases the possibility that visibility will be affected when the car is in motion. Before departing, start your car and turn the heater on for a minute or two before using the defroster. This will prevent moisture from fogging the windshield when warm air hits the cold glass. To prevent damage to your wiper blades or wiper motor, be sure the wipers are "off" before starting the engine. Try to avoid driving when visibility is poor; but, if you must drive, keep your speed low, headlights on low beam, and pull off to a safe spot as soon as possible.

Correct seat position and use of protective equipment (seatbelts and sunglasses to combat glare) will aid you in seeing and performing those gentle, smooth, precise movements necessary for safe winter motoring. The correct seating position is achieved when the driver's elbows are slightly bent, and he/she can effortlessly reach the pedals, operate all controls and turn the steering wheel a full 180° (left or right) without moving his/her hands from the steering wheel. The use of safety belts enhances your ability to control the vehicle in an emergency by keeping the driver behind the wheel.

WINTER DRIVING TECHNIQUES

Starting

To get started, clear a path in front of the wheels for several feet. This can be accomplished by driving forward and backward in the parking space or; if the snow is too deep, some additional shoveling may be required. With the front wheels pointed straight to minimize rolling resistance, shift to second gear (manual transmissions) or to "drive" (automatic transmissions) and, with gentle pressure of the accelerator, try to ease out of the parking space **without** spinning the wheels. If you let the wheels spin, you will only dig deeper. When more traction is needed, use traction mats or spread some sand, salt or any handy abrasive material in front of and in back of the driving wheels. When using devices under the wheels for additional traction or when wheels are digging into dirt or gravel and you are receiving pushing assistance, **Do not let anyone stand directly in line with the drive wheels**—they may be injured by objects thrown by the spinning wheels. If the wheels continue to spin, creating a deeper rut, stop and let the tires cool. If nothing works, you might try rocking the vehicle out of the rut by alternately shifting from reverse to second gear (manual transmissions) or from reverse to drive (automatic transmissions)—but exercise care. Check your owner's manual to see if such a procedure is recommended and/or how it is performed.



Tracking and Following

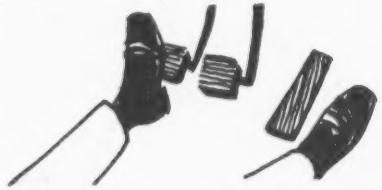
When driving on slippery surfaces, remember: **traction is greatest just before the wheels spin.** Gentle pressure on the accelerator pedal when starting is the best method for retaining traction and avoiding skids. If your wheels start to spin, let up on the accelerator until traction returns. Once underway, keep going. When approaching a hill, observe how other vehicles are reacting and keep far enough behind the vehicle immediately ahead so that you will not have to slow down or stop. This will allow you to maneuver around any stuck vehicles and to increase your speed (within reason) at or near the bottom of the hill to give you the extra momentum to carry you over the top. As you reach the crest of the

hill, reduce your speed and proceed down the hill as slowly as possible. Minimize brake use on **very slippery**, icy hills; if further speed reduction is needed, gentle, slow brake application (squeeze braking) is recommended to avoid locking the wheels and skidding.

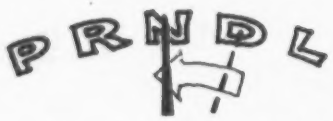
Normal dry pavement following distance (2 seconds) should be increased to 8 to 10 seconds when driving on icy, slippery surfaces. This increased margin of safety in front will provide the longer distance needed if you have to stop.

Steering

Snowy or icy surfaces make steering difficult, and require smooth, careful, precise movements of the steering wheel. Skidding—in which the front, rear or all four wheels move laterally—is caused by hard acceleration or braking, speed too fast for conditions and quick, jerky movements of the steering wheel. Skids can best be avoided by anticipating lane changes, turns and curves; by slowing down in advance; and by making smooth, precise movements of the steering wheel.



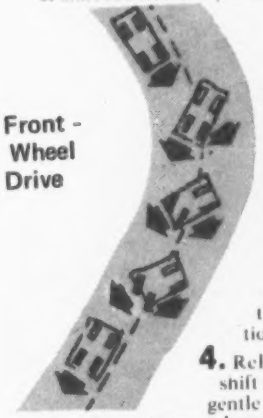
If a skid should develop because of deteriorating road conditions and/or high speed, don't panic. Don't brake. Don't jerk the steering wheel. In all skids, disconnect the driving force on the drive wheels. To accomplish this, DE-CLUTCH (manual shift) or shift to NEUTRAL (automatic shift) to equalize the rotational speed of all four wheels. De-clutching is easy; however, shifting to neutral with an automatic transmission is difficult, requires **practice** and should not be attempted unless you are certain of finding neutral immediately. Next, maintain or regain directional control with smooth, precise steering movements.



The most effective way to get your vehicle back under control if the rear wheels skid is as follows:

REAR-WHEEL SKIDS

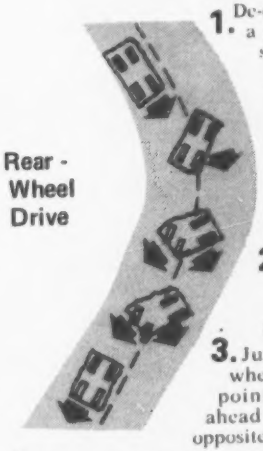
1. De-clutch on a car with a manual transmission, or take your foot off the accelerator and/or shift to neutral (if you are certain of finding neutral immediately) on a car with automatic transmission.



2. Steer in the same direction as the rear wheels are skidding.

3. Just before the rear wheels stop skidding, point the wheels straight ahead by steering in the opposite direction.

4. Release the clutch or shift to "drive" and apply gentle accelerator pressure so that the engine speed matches the road speed, and accelerate smoothly to a safe speed.



1. De-clutch on a car with a manual transmission, or take your foot off the accelerator and/or shift to neutral (if you are certain of finding neutral immediately) on a car with automatic transmission.

2. Steer in the same direction as the rear wheels are skidding.

3. Just before the rear wheels stop skidding, point wheels straight ahead by steering in the opposite direction.

4. If you over-correct the first skid (Step 3), be prepared for a rear-wheel skid in the opposite direction. Practice and timely gentle movement of the steering wheel is necessary to avoid this type of skid.

5. Release the clutch or shift to "drive" and apply gentle accelerator pressure so that the engine speed matches the road speed, and accelerate smoothly to a safe speed.

FRONT-WHEEL SKIDS

Sometimes front-wheel skids are perceived as more dangerous because they are experienced less often. In actuality, front-wheel skids are easier to correct and less hazardous because there is no risk of the car skidding in the opposite direction. Regardless of whether the vehicle is a front- or rear-wheel, the best way to regain control if the front wheels skid is as follows:

1. De-clutch on a car with manual transmission, or take your foot off the accelerator and/or shift to neutral (if you are certain of finding neutral immediately) on a car with automatic transmission.

2. Don't move the steering wheel. Since the wheels are skidding sideways, a certain amount of braking force will be exerted. (Unwinding the steering wheel to reduce the steering angle will result in regaining steering sooner; however, the vehicle will be traveling faster because there is little sideways braking force. This technique should only be attempted in situations where limited space and sharp curves exist.)

3. Wait for the front wheels to grip the road again. As soon as the lateral forces created by the speed of the car fall below the gripping forces necessary to steer the vehicle, the car will start to steer again.

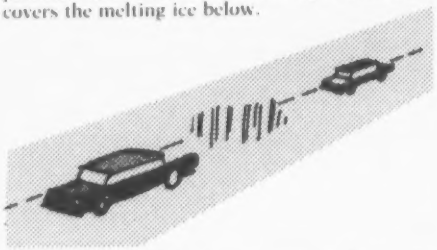
4. When the front wheels have regained their grip, steer the wheels gently in the desired direction of travel.

5. Release the clutch or shift to "drive" and apply gentle accelerator pressure so that the engine speed matches the road speed and accelerate smoothly to a safe speed.

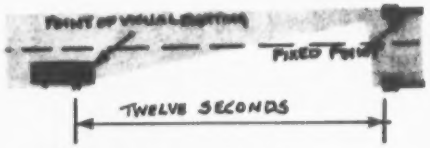
There is no risk at all of the car skidding in the opposite direction.

STOPPING

Stopping on slippery surfaces requires longer seeing, following and stopping distances. Drivers proficient at driving and braking on slippery surfaces have acquired these techniques by practicing in secluded areas before-hand. These drivers are also knowledgeable of the additional hazards associated with and created by certain roadway areas—such as shaded spots, bridges, overpasses and intersections—and temperature changes—at 32°F, stopping distances on ice are twice as great as at 0°F. These are areas where ice is likely to form first or be the slipperiest, because the shiny, ice surface has either been "polished" by previous vehicle traffic or a thin layer of water covers the melting ice below.



To compensate for the longer stopping distances required when driving on slippery surfaces, focus your attention as far ahead as possible (at least 12 seconds) and allow for the greatest margin of safety to the front. When road conditions change, so do the braking requirements.



BRAKING ON ICE AND SNOW

The most efficient technique for braking under these conditions is to use "squeeze braking" together with de-clutching (manual shift) or shifting to neutral (automatic transmission). Squeeze braking is accomplished by applying the brakes fairly hard, so that the wheels will lock only for an instant, and then easing off the brakes slightly (not completely), if the wheels should lock, to a point just before locking occurs. This will give you the best combination of braking effort and directional control.

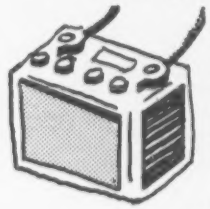
PREPARING TO DRIVE

Preparing the Vehicle

From a mechanical operation aspect, winter conditions—wet, cold and icy weather—present the greatest difficulty to your engine's operating efficiency. Since these conditions cannot be avoided, **prepare** for winter by getting a engine tune-up in the fall. Check, or have your mechanic check, the following items:

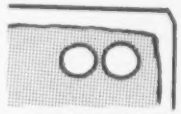
1. Electrical System

Battery



Cold weather starts require a battery that is fully charged. Recharge or replace weak batteries. If appropriate, check the fluid levels and make certain the battery posts and cable clamps are clean and tight. Have your voltage regulator checked, too.

Lights

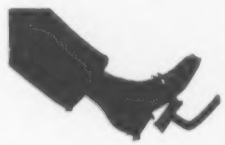


Check the headlights, parking lights, directional signals (front and rear), taillights and brake lights for proper operation.

'gnition System

Damaged ignition wires, a cracked distributor cap, or worn spark plugs can make starting difficult or cause a sudden breakdown. A fall engine tune-up will reveal any problems.

2. Brake System



To avoid skids on slippery surfaces you need equal braking on all four wheels. Brakes should be checked and, if needed, properly adjusted to ensure equal braking.

SOME ADDITIONAL HINTS

1. **Avoid driving while fatigued.**
2. **Use your seatbelt every time you get in the car.**
3. **Never warm up a vehicle in an enclosed area, such as a garage.**
4. **Make certain your tires are properly inflated.**
5. **Never mix radial tires with other tire types.**
6. **Keep your gas tank at least half full to avoid gas line freezeup.**
7. **If possible, avoid using your parking brake in cold, rainy and snowy weather.**

American Automobile Association
Traffic Safety Department
8111 Gatehouse Road
Falls Church, Virginia 22047

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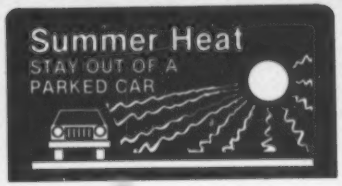
Summer Heat

STAY OUT OF A PARKED CAR



During hot weather, heat build-up in a closed or nearly closed car can occur quickly and intensely. Children and pets can die from heat stroke in a matter of minutes when left in a closed car. Never leave anyone in a parked car during periods of high summer heat.

Developing Emergency

STAY INFORMED

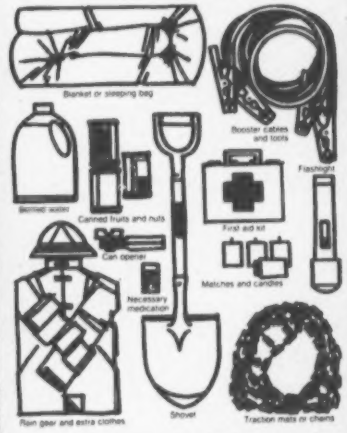
In times of developing emergencies such as toxic material spill, nuclear plant accident, or enemy attack, keep a radio or television on and await instructions. If evacuation is recommended, move quickly but calmly, following instructions as to route to be used, evacuation shelter to be sought, and other directions.

(6)

Emergency Supplies

KEEP IN THE CAR

Cars should be equipped with supplies which could be useful in any emergency. Depending on location, climate of the area, personal requirements and other variables, the supplies in the kit might include (but are not limited to) the following:



NEVER CARRY GASOLINE IN CONTAINERS OTHER THAN THE CAR'S GAS TANK!

(7)

(8)

disaster driving

safety tips for motorists in emergencies

FEDERAL EMERGENCY MANAGEMENT AGENCY

(9)

disaster driving

Americans are world-famous for their long-term love affair with the automobile. In times of emergency, however, people often react incorrectly, either staying with or abandoning their cars at the wrong time.

A mistake can be fatal.

After almost every disaster, search and rescue teams find victims who might have survived if they had known whether to stay with or leave their cars.

Following are safety tips for drivers in various types of emergencies. This information should be kept in the glove compartment of your car. In any situation, the most important rule is: Don't panic.

Earthquake
STAY IN THE CAR

Bring the car to a halt as soon as safely possible, then remain in the car until the shaking has stopped. The car's suspension system will make the car shake violently during the quake, but it is still a safe place to be. Avoid stopping near or under buildings, overpasses and utility wires. When the quaking has stopped, proceed cautiously, avoiding bridges and other elevated structures which might have been damaged by the quake and could be damaged further by aftershocks.

Hurricane
EVACUATE EARLY

Flooding can begin well before a hurricane nears land. Plan to evacuate early, and keep a full tank of gas during the hurricane season. Learn the best evacuation route before a storm forms, and make arrangements with friends or relatives inland to stay with them until the storm has passed. Never attempt to drive during a hurricane or until the all-clear is given after the storm. Flash flooding can occur after a hurricane has passed. Avoid driving on coastal and low-lying roads. Storm surge and hurricane-caused flooding are erratic and may occur with little or no warning.

LISTEN to radio or television for the latest National Weather Service bulletins on severe weather for the area in which you will drive.

Flood
GET OUT OF THE CAR

Never attempt to drive through water on a road. Water can be deeper than it appears, and water levels can rise very quickly. Most cars will float dangerously for at least a short while. A car can be buoyed by floodwaters and then swept downstream during a flood. Floodwaters also can erode roadways, and a missing section of road—even a missing bridge—will not be visible with water running over the area. Wade through floodwaters only if the water is not flowing rapidly and only in water no higher than the knees. If a car stalls in floodwater, get out quickly and move to higher ground. The floodwaters may still be rising, and the car could be swept away at any moment.

Tornado
GET OUT OF THE CAR

A car is the least safe place to be during a tornado. When a warning is issued, do not try to leave the area by car. If you are in a car, leave it and find shelter in a building. If a tornado approaches and there are no safe structures nearby, lie flat in a ditch or other ground depression with your arms over your head.

Blizzard
STAY IN THE CAR

Avoid driving in severe winter storms. If you are caught in a storm and your car becomes immobilized, stay in the vehicle and await rescue. Do not attempt to walk from the car unless you can see a definite safe haven at a reasonable distance. Disorientation during blizzard conditions comes rapidly and being lost in the snow is exceedingly dangerous. Turn on the auto engine for brief periods to provide heat, but always leave a down-wind window open slightly to avoid deadly carbon monoxide poisoning. Make sure the exhaust pipe is clear of snow. Exercise occasionally by clapping hands and moving around. Do not remain in one position for long, but avoid overexertion and exposure from shoveling or pushing the car. Leave the dome light on at night as a signal for rescuers. If more than one person is in the car, sleep only in shifts.

PANEL (2) (3) (4) (5)

A WINTER HAZARD FOR THE OLD

accidental hypothermia

NIH Publication No. 81-1464
Revised October 1980

U.S. DEPARTMENT OF
HEALTH AND HUMAN SERVICES
Public Health Service
National Institutes of Health

A Winter Hazard for the Old:

Accidental Hypothermia

Winter is a time of many illnesses and injuries. Cold, icy weather can bring about heart attacks, frostbite, and asthma, as well as broken bones due to falls. While staying a long time in a cold place can harm anyone, it is particularly risky for the old. Even mildly cool temperatures of 60°F (15.5°C) to 65°F (18.3°C) can trigger accidental hypothermia (hi-po-ther-mee-uh), a drop in deep body temperature that can be deadly if not detected promptly and treated properly. Some diseases and certain drugs can make a person more likely to have this condition.

Accidental hypothermia is not new, but it has only recently received attention. Figures collected in Great Britain over the past 25 years suggest that about 10 percent of persons 65 and over are at risk.

A person is especially vulnerable if he or she:

Lives alone or is isolated, without a phone to reach help in case of accident or illness.

Does not shiver or react to cold normally.

Is ill or unable to move around well.

Is taking drugs that keep the body from regulating temperature normally. Such drugs include phenothiazines, which are commonly used to treat anxiety, depression, nausea, and other conditions.

What is hypothermia?

Hypothermia is a condition marked by an abnormally low *internal* body temperature—typically 95°F (35°C) or under. A simple drop in skin temperature is not hypothermia. While hypothermia can sometimes develop slowly, it usually occurs fairly quickly—over a period of a few days.

Hypothermia can be brought on deliberately. For example, in some types of surgery, the patient is chilled to slow breathing, heartbeat, and other body processes. *Accidental* hypothermia, however, may occur in anyone who is exposed to severe cold without enough protection. In addition, some elderly can develop accidental hypothermia after exposure to relatively mild cold.

Who is at risk?

The elderly probably account for nearly half of all victims of accidental hypothermia. Infants are also at risk, as are a few adults between 35 and 64 years old. Immature temperature control is thought to be the reason that infants are at risk. The cause in middle-aged adults is still not fully understood.

Among the elderly, those most likely to develop accidental hypothermia are the chronically ill, the very old, the poor who are unable to afford enough heat, and those who do not take the normal steps to keep warm. The greatest risk is to the relatively small number of aged persons whose temperature regulation is defective. These people do not shiver, and thus cannot produce body heat when they need it.

How many people are affected?

Accurate data on the number of people who die from accidental hypothermia are not available. This lack of information has occurred in part because many doctors are not familiar with the condition, and because its symptoms are like those of many other illnesses. Even an autopsy will not definitely tell if a person died from accidental hypothermia.

Why do the aged get accidental hypothermia more often than other people?

With advancing age, many people become less able to resist and recover from stresses such as prolonged exposure to cold. The elderly often may not sense that they are becoming cold as readily as younger people, and their bodies may not adjust to changes in temperature as well.

In response to cold, the blood vessels near the surface of the body normally narrow to reduce heat losses. Muscles also begin to tighten to make heat. The result is pale skin and shivering. The reasons why some older people do not respond to cold in a normal way are not yet known.

How can the old protect themselves against accidental hypothermia?

We do not have a strong scientific base on which to set guidelines for temperatures in the homes of the elderly. However, heating the living and sleeping areas of older persons to 65°F (18.3°C) appears adequate in most cases, although people who are sick may need higher

indoor temperatures. (For details, see the next section, "How Are Potential Victims Identified?")

Other measures also should be taken to prevent accidental hypothermia. Dressing warmly during the day, eating enough food, and staying as active as possible are good ways to maintain body heat. Because hypothermia may often start during sleep, special care should be paid to keeping warm in bed by wearing enough clothing and using blankets.

Those older people who are taking medicine to treat anxiety, depression, nervousness, or nausea should ask their doctors whether the medication might affect the control of body temperature.

If possible, older persons should try not to be alone for very long or should ask friends or neighbors to look in on them once or twice a day, particularly in severe cold. In some communities, telephone check-in or personal visit services are available.

How are potential victims identified?

Several signs can aid in identifying possible victims. However, not even a physician can tell exactly how vulnerable a person might be to accidental hypothermia.

HYPOTHERMIA CLUES:

An elderly person may often seem to be unaware of the cold. While others shiver and put on sweaters, an older individual may not shiver and may insist that he or she is comfortable.

Family and friends may notice that a person is not thinking clearly or is not acting as usual.

Various medications may increase the risk of accidental hypothermia. Such drugs include chlorpromazine and other phenothiazines given to treat anxiety, depression, and nausea.

Certain medical conditions may blunt the body's response to cold. These include:

- *disorders of the body's hormone system, especially hypothyroidism ("slow" thyroid);*
- *conditions such as stroke that cause paralysis or reduce awareness;*
- *illnesses such as severe arthritis and Parkinson's disease, which limit activity;*
- *any condition that severely impairs the normal constriction of blood vessels; and*
- *alcoholism.*

A previous bout with accidental hypothermia may be a sign of a lasting problem with temperature regulation.

A person who lives alone and receives few visitors has a greater chance of

lengthy exposure to the cold in case of an accident or illness.

Anything increasing the chances of nighttime accidents—poor vision, difficulty sleeping, confusion, nocturia (frequent urination at night), or incontinence (poor control of bowel movements or urination)—can raise the risk of hypothermia.

Those with low income and little savings often find it difficult to pay high heating bills. But even those who cannot afford large energy bills can dress warmly. In addition, a person can arrange to heat—and stay in—only one or two rooms of the home. And low-income families can get help in paying high energy bills through their state or local community services agency. Institutions such as nursing homes which care for the elderly should be especially careful when lowering temperatures, because patients who are already sick may have particular difficulty producing additional body heat.

Housing without proper insulation from the cold can also increase the risk of accidental hypothermia. However, government-funded weatherization assistance programs in each state help low-income families insulate their homes. Contact your state or local energy office for more information.

How can hypothermia be detected?

Take the individual's temperature. If it is below 95°F (35°C) or does not register on an oral thermometer, repeat using a rectal thermometer for a more accurate reading. If the temperature still does not register or is below 95°F (35°C), get emergency medical help. The only sure way to detect hypothermia is to use a special low-reading thermometer, available in most hospitals, whose scale goes below the usual low point of 94°F (34°C).

If a thermometer is not available, warm your hand on your body (the chest or abdomen is best) and use it to compare the victim's body temperature with your own.

Other signs to look for are:

A change in appearance or behavior during cold weather.

Uncontrollable shivering, lack of shivering, or stiff muscles.

Low indoor temperatures and other signs that the victim has been in an unusually cold room.

Slow—and sometimes irregular—heartbeat; slurred speech; shallow, very slow breathing.

Weak pulse; low blood pressure.

Confusion, disorientation, or drowsiness.

perhaps lapsing into coma. The lower the body temperature, the more likely that the victim will be unconscious. Coma is very probable if the body temperature is 90°F (32.2°C) or under.

Lack of coordination; sluggishness.

Why is accidental hypothermia such a threat if there are so many signs of its presence?

Unfortunately, these signs, other than the drop in body temperature to 95°F (35°C) or below, can be the same as those of a stroke, diabetic coma, heart disease, and other conditions. The victim may not reliably report what is happening, as he or she may not complain of feeling cold.

How is the condition treated?

A victim must be rewarmed, or else he or she will stay chilled. And he or she must be seen by a physician, preferably one familiar with accidental hypothermia and preferably in a hospital setting.

If you suspect that a person has accidental hypothermia, take his or her temperature as outlined above. If it is below 95°F (35°C), call a doctor or ambulance or take the victim directly to a hospital. If you must wait for emergency medical help to arrive, prevent further heat loss by wrapping the victim in a warm blanket (thermal or electric); using hot water bottles or electric heating pads (preferably on the victim's abdomen, but never on a high setting); and, if the victim is alert, giving him or her small quantities of warm food and drink (but nothing alcoholic!).

If these methods are not available, you can use your own body heat to help keep the victim warm. Lie close to the person, being careful not to handle him or her too roughly. Rubbing the person's limbs, for example, can worsen the condition.

If the victim is unconscious, lower the head and raise the feet to prevent shock and guard against accidental choking.

What are the chances for recovery?

Chances of recovery depend on the severity and length of the exposure to cold, as well as previous general health. If body temperature does not drop below 90°F (32.2°C), chances for a normal recovery are good, barring other complications. If the temperature falls to

between 80°F (26.6°C) and 90°F (32.2°C), most victims will recover but some sort of lasting damage is more likely. If the temperature goes under 80°F (26.6°C), most victims, especially the very old, will not survive.

What are the possible complications?

Hypothermia can worsen pre-existing conditions, such as heart disease and diabetes. Fall of the body's temperature below 90°F (32.2°C) usually causes many complications, because vital organs are damaged or body functions are disrupted. Serious hypothermia often leads to problems with the kidney, liver, and pancreas. The most severe problem during hypothermia and rewarming is a form of irregular heartbeat (ventricular fibrillation) which leads quickly to death if not treated.

What can be done to reduce the threat of accidental hypothermia?

Although we know that continued exposure to even mild cold can be a deadly threat to many elderly, we still do not understand hypothermia itself. We have no sure way to tell who is susceptible. We do not understand the defects in the body responsible for accidental hypothermia, particularly in victims who appear well protected. We still need to learn the best way to treat accidental hypothermia in the elderly and distribute this information to physicians, nurses, and paramedics.

At present, to protect the old from accidental hypothermia as best as possible, we must teach physicians and emergency medical personnel how to recognize and treat the condition. We also must encourage the elderly themselves to find out if they are at risk and to keep themselves warm in even mildly cold environments. Future advances in our understanding, treatment, and ultimate prevention of accidental hypothermia will derive from scientific research on this condition and on other health problems of the elderly.

READEX FICHE

Medicine

By VIVIAN BUCHAN

Hypothermia: The Winter Killer

Kenneth Moneagle, 33, and Lewis Lackey, 37, left their homes in Little Rock, Arkansas, excited about their deer-hunting vacation in the Sangre de Cristo Mountains near Cowles, New Mexico. Even though they saw no deer the first two days, they were enjoying themselves. But on the third morning when they left their cabin at dawn, the killer hypothermia was lurking in the shadows.

Shortly after 8 A.M., a snowstorm overtook the two men and they became separated—never to be reunited. It was two days before a search party found Moneagle dead, one mile from the cabin and three miles from where he had lost Lackey.

Larry Renner of the state medical investigator's office in Santa Fe believed Moneagle died of hypothermia brought on by exhaustion, lack of food, improper clothing, and the mental confusion that results from the drop in body temperature.

You don't have to be a hunter to become a victim of hypothermia—scores of people die every winter from freezing to death. Although hunters are the prime target, the killer pounces on stranded motorists, plane-crash survivors, skiers, farmers, lost children, backpackers and snowmobilers.

Even if the temperature is well above freezing, you can die in less than two hours from exposure. According to the National Ski Patrol, here's what can happen:

When the body temperature drops below the normal 98.6 degrees Fahrenheit and dips to 95 degrees, the person may be unable to speak or walk. Usually, he becomes so mentally disoriented he is not even aware of what's happening to him.

When the body temperature decreases below 90 degrees, shivering increases and the muscles become tense and rigid. When it plummets to 81 degrees, the victim becomes unconscious. If the body temperature falls below 71 degrees, the heart is apt to stop beating.

Strangely enough, the colder the person becomes, the warmer he begins to feel. Said James Weston, New Mexico medical examiner: "Individuals who die as a result of exposure often begin taking off their clothes during the last moments of life."

Of course, the best way to avoid this is to avoid being in situations where you could freeze to death. But what should you do if you are caught in an emergency where you are hurt or lost? Says Dick Spray, a cold weather survival expert for the U.S. Forest Service: "Getting lost isn't the problem. The trick is to take it in stride and simply wait out adverse conditions. I always carry tea bags with me. They give me a chance to build a fire, brew a cup of tea, get warm and think. Most outdoorsmen carry matches, but when the inexperienced person needs them the most they're usually a soggy mess. I always carry matches in waterproof containers in different pockets."

Most people are conscientious about dressing themselves and their children in winter clothing, but they often make the mistake of thinking that down-filled coats or windbreakers are the best. But they're not. The only material with insulating properties—even when wet—is wool.

If you are lost, Spray says, "The first problem is to maintain your body heat. Wandering around in circles or creating a panic reaction burns up the calories you need to conserve. You've got to get out of the wind. If you can't find some shelter like rocks or trees, get behind the automobile or plane wreckage. Building a snow cave can help, but it wastes energy and burns up calories. And the exertion depletes your vitality and endurance."

Keep in mind that clothing in direct contact with snow, rocks or metal absorbs the cold more quickly into the body. If you can gather logs or branches and huddle against them, you will find they are better insulators. The important thing is to keep as quiet as possible and stay as warm as you can.

The American Red Cross advises that a chilled person be warmed with hot, sweet drinks and immersed in warm water. That's fine if you are found before you collapse. But what can you do if you're against a tree and alone in a blizzard or bitter cold winds? Keep as quiet and warm as possible.

If you're with someone, body-to-body contact keeps both persons warmer. Sharing a sleeping bag with a companion or dog will conserve warmth.

Families who travel in winter can have an accident, get lost or be caught in a sudden storm that paralyzes traffic. Wise families prepare for such emergencies by equipping a survival kit with chocolate bars, crackers, cheese, a flashlight, flares, fire-starting materials and matches. In addition, toss some woolen blankets, heavy fleece-lined boots, warm scarves and mittens into the trunk along with a shovel and a bag of sand or gravel. Then take Thermos jugs of hot tea, coffee and cocoa. If you're going into the high country where snowslides can occur, prepare for such an emergency by taking snow-removal tools.

If you are stranded on the highway for some reason, don't leave the car and go hunting for help. Motorists have frozen to death a few yards from their own cars where they might have survived had they stayed in them. Hunters have been found a few feet from their cabins or a campfire when they've wandered away to hunt for a lost companion or tried to find their way back.

Hypothermia is called "the killer of the unprepared." In fact, it is the Number One killer of outdoor recreationalists. Weather announcers mention the wind-chill factor along with the temperature, and that's the one you should prepare to withstand whether you are going on foot, in a car or on a snowmobile. It may be 40 degrees outside with the sun shining, but a 10 mph wind will lower the temperature to 28 degrees. And if it increases to 20 mph, the temperature will drop to 18 degrees.

Most cases of hypothermia develop in air temperatures between 30 and 50 degrees, which does not sound very cold. But it is cold enough if conditions are right and you are in wet clothes. That's why it is vital to keep the wind-chill factor in mind and get out of the wind one way or another if you're stranded, lost or simply exposed to the cold.

Because hypothermia strikes when it is least expected, know what to do and prepare for that emergency before you get into it. It's often difficult to tell when someone begins to develop hypothermia, but it is even more difficult to determine if you are developing it. Your senses become so dulled and your mental confusion so pronounced that you are not even aware of what is happening to you. This is another reason why the "buddy" system works so well and why you should not wander off by yourself or plan an excursion of any kind without a companion.

Beware of hypothermia, an enemy who's lurking out there in the cold just waiting to stalk its unprepared, uninformed victims.

Vivian Buchan is a former professor at the University of Iowa.

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National Institute on Aging

Age Page

Heat, Cold, and Being Old

As you get older, your body becomes less able to respond to long exposure to heat or cold. In cold weather, some older people may develop accidental hypothermia (hi-po-thur-mee-uh), a drop in internal body temperature that can be fatal if not detected and treated promptly. During hot and humid weather, a buildup in body heat can cause heat stroke or heat exhaustion in the elderly. This is especially true of those with heart and circulatory disease, stroke, or diabetes.

Accidental Hypothermia

Hypothermia is a condition of below-normal body temperature—typically 95 °F (35 °C) or under. *Accidental* hypothermia may occur in anyone who is exposed to severe cold without enough protection. However, some older people can develop accidental hypothermia after exposure to relatively mild cold.

Those elderly most likely to develop accidental hypothermia are: the chronically ill, the poor who are unable to afford enough heating fuel, and those who do not take the normal steps to keep warm. The small number of aged persons whose temperature regulation is defective face the greatest danger. For unknown reasons, these people do not feel cold or shiver, and thus cannot produce body heat when they need it. It is interesting to note that many people who have "felt cold" for years may actually have a lower risk of accidental hypothermia.

The only sure way to detect hypothermia is to use a special low-reading thermometer, available in most hospitals. A regular thermometer will do as long as you shake it down well. If the temperature is below 95 °F (35 °C) or does not register, get emergency medical help. Other signs to look for include: an unusual change in appearance or behavior during cold weather; slow, and sometimes irregular, heartbeat; slurred speech; shallow, very slow breathing; sluggishness; and confusion. Treatment consists of rewarming the person under a doctor's supervision, preferably in a hospital.

Heat-Related Illnesses

Heat stroke is a medical emergency requiring immediate attention and treatment by a doctor. Among the symptoms are: faintness, dizziness, headache, nausea, loss of consciousness, body temperature of 104 °F (40 °C) or higher, measured rectally, rapid pulse, and flushed skin.

Heat exhaustion takes longer to develop than other heat-related illnesses. It results from a loss of body water and salt. The symptoms include: weakness, heavy sweating, nausea, and giddiness. Heat exhaustion is treated by resting in bed away from the heat and drinking cool liquids.

Protective Measures

In Cold Weather: There is no strong scientific basis for recommending room temperatures for older people. However, setting the heat at 65 °F (18.3 °C) in living and sleeping areas

(over, please)

should be adequate in most cases, although sick people may need more heat.

Measures you can take to prevent accidental hypothermia include:

- ☐ Dress warmly even when indoors, eat enough food, and stay as active as possible.
- ☐ Because hypothermia may start during sleep, keep warm in bed by wearing enough clothing and using blankets.
- ☐ If you take medicine to treat anxiety, depression, nervousness, or nausea, ask your doctor whether the medication might affect the control of body temperature.
- ☐ Ask friends or neighbors to look in on you once or twice a day, particularly during a cold spell. See if your community has a telephone check-in or personal visit service for the elderly or homebound.

In Hot Weather: The best precaution is to remain indoors in an air-conditioned room. If your home is not air-conditioned, you might go to a cool public place (like a library, movie theater, or store) during the hottest hours.

Other good ways to cool off include taking baths or showers, placing icebags or wet towels on the body, and using electric fans (being careful to avoid getting an electrical shock). In addition, it is wise to:

- ☐ Stay out of direct sunlight and avoid strenuous activity.
- ☐ Wear lightweight, light-colored, loose-fitting clothing that permits sweat to evaporate.
- ☐ Drink plenty of liquids such as water, fruit and vegetable juices, and iced tea to replace the fluids lost by sweating. Try not to drink alcoholic beverages or fluids that have too much salt, since salt can complicate existing medical problems, such as high blood pressure. Use salt tablets only with your doctor's approval.
- ☐ Above all, take the heat seriously, and don't ignore danger signs like nausea, dizziness, and fatigue.

Contact for Assistance

Anyone trying to save on fuel costs can protect against hypothermia by dressing warmly and heating only one or two rooms of the home. There are government-funded programs to help low-income families pay high energy bills, weatherize (insulate) their homes, or even get emergency repairs of heating/cooling units. Your local community action agency or area agency on aging should be able to direct you to the proper source of assistance.

Caution, common sense, and prompt medical attention can help older people avoid illnesses due to heat and cold. For the brochure *A Winter Hazard for the Old: Accidental Hypothermia,* check your supermarket information rack or write to: NIA/AH, Expand Associates, 8630 Fenton Street, Suite 508, Silver Spring, Maryland 20910.

February 1981

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES Public Health Service National Institutes of Health

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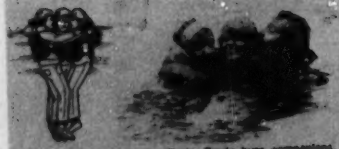
TECHNIQUES FOR COLD WATER SURVIVAL



New Hampshire coordinator Becky Towle hugs companions, Butch Ohnken, Iowa, and Doug Hoskins, Wisconsin, to demonstrate that the group-huddle position not only maintains a higher morale while reducing body heat loss fast it also provides a larger target for search and rescue units. To assume the group-huddle position, individuals wrap arms around each other while facing chest to chest. PFD's must be worn.

Hudson demonstrated the HELP position. In the "Heat Escape Lessening Posture," the knees are drawn toward the chest and the arms are crossed to prevent heat loss from the body's vital regions. This U.S.C.G. approved PFD/Float jacket fits properly and allows the wearer's head and neck (where up to 40 percent of the body's heat may be lost) to remain out of the water. Note use of the hood to provide greater protection.

Hip and chest waders will support anyone in the water if the toes are kept up to trap air.

The two volunteers in the foreground float effortlessly in hip waders and chest waders as trapped air supports their weight.

A simulated drowning shows the classic position — arms extended to the sides simultaneously pressing down on the water in an attempt to gasp air. Any thrown rescue device must hit the person since drowning victims can not see or hear and can not grab thrown objects.

Water completely body heat many times the conductivity of air. Therefore, in water below 70 degrees, a person will lose body heat 25 times faster than in air of the same temperature. Across the 50-60 degree range — an average water temperature in NE regions from 10 to 15 months — survival time is from 1 to 6 hours. Add waves or a 10-20 knot wind and it doesn't know what to do.

Courtesy of Fay Ainsworth/Hunter Safety News

1 MOST IMPORTANT -YOU-

Your knowledge and attitude

2 PFD ITSELF

It must fit the wearer properly and snugly. For best results, the PFD should have a minimum "ride-up" in the water. The more a person struggles, the more the PFD will rise out of the water. The user should minimize movements. Rest in the water. Locomotion should be a "lazy hand sculling" while lying on the back. The worst method of moving about is with the crawl stroke.

a. PFD marked with owner's name.
b. PFD has pockets to store / protect survival equipment.
c. PFD has retroreflective tape on its shoulders — it's much easier to find a night swimmer with retro-tape. (Remember Murphy's Law — if something can go wrong, it will.)

3 FLARE GUN

Shoots projectile high above water surface. Can be seen for miles at night. Also note that this particular kit has dye marker and marine distress marker (flag).

4 WHISTLE

Inexpensive but effective sound producing device. Relatively high pitch more effectively heard than human voice over water. Meets USCG sound signaling requirements for power boats under 16 feet long.

5 SMOKE SIGNAL

Water proof, international orange smoke generator? Must be used only when boats or aircraft are in immediate area.

6 ALUMINUM NAILS

Used as picks to crawl up slippery banks; as picks to climb upon ice; with lanyards to tie self to others or floating objects. Use aluminum because they are lightweight and non-rusting.

7 WATER TIGHT CONTAINER

Zipper locks on watertight container holds matches. Used to start warming fire on shore. (THINK SURVIVAL)

8 SIGNAL MIRROR

Inexpensive glass item that can be used to reflect sunlight toward distant boats or aircraft.

9 INSTANT GLUCOSE

To provide quick energy.

10 FLOATABLE STROBE LIGHT

Floatable, bright signal light? that does not have to be held by PFD occupant. Uses standard dry cells. Check shelf life!

SPACE BLANKET (NOT SHOWN)

Mylar covered, heat reflective covering. Can be used as signaling device or blanket to boat, life raft or others. (Note: do not demonstrate or use mylar blanket in chlorinated swimming pool. Chlorine reacts with mylar.)

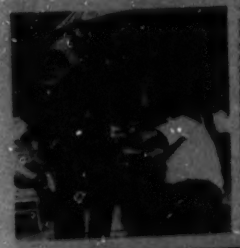
HOW TO MAKE A SURVIVAL PFD

All sportsmen should be encouraged to wear a Personal Flotation Device while waterfowl hunting or fishing. Comfortable Type III PFD's, such as shown on this page, allow personal freedom of action and versatility. They should be fit to the individual wearer and can be made into an emergency survival vest as pictured above. Be prepared for the cold water emergency; attach all items by shoelaces to the vest because cold water numbs fingers and equipment can't be grasped after immersion. The owner must practice using the PFD in water and know how to use each piece of survival gear.

"One-two-three - over!" Hunter Safety coordinators (right to left) Becky Towle, New Hampshire, Butch Ohnken, Iowa and Wisconsin instructor Doug Hoskins overturn a typical jumbper.

Volunteers had to dive to retrieve PFD's stowed under seats — but are "immediately accessible" as required by law. (Remember: A PFD can't save your life unless you are wearing it!)

Even experienced swimmers have trouble trying to put on PFD's while floating. The obvious solution — wear it!

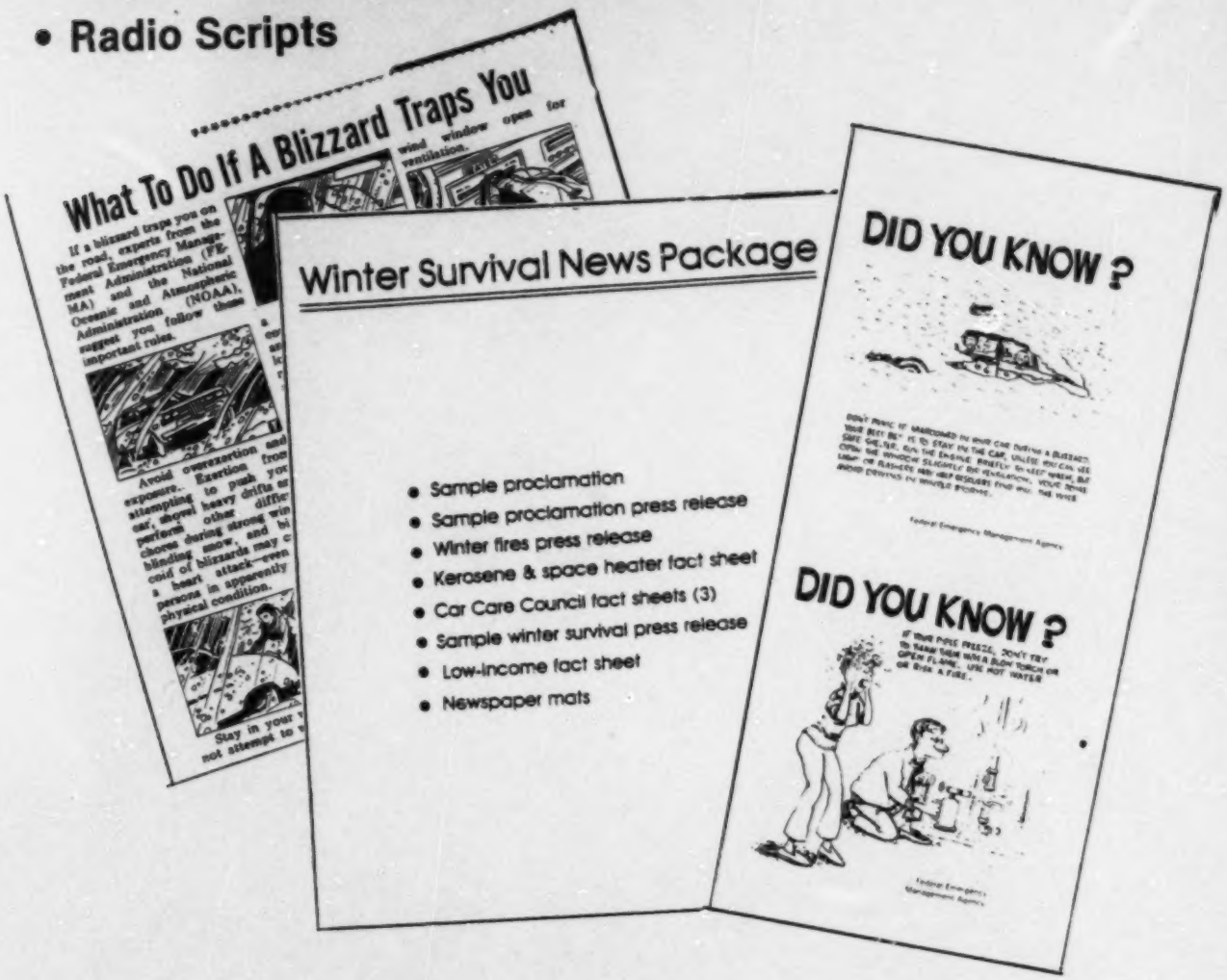


"Button up," says Cook Smith to Butch Ohnken at Iowa as he fastens a special flap on the Mustang float coat. This sportsmen's flotation jacket is designed to prevent cold heat loss by insulating the three primary heat loss areas: the head-neck, armpit and groin. Survival time may be increased by as much as nine times when compared to that of an unprotected swimmer. The lower flap and hood may be worn unbuttoned ready for use in an emergency.

Courtesy of Fay Ainsworth, Hunter Safety News

IV. MEDIA PACKET

- **Backgrounders & Fact Sheets**
- **Newspaper Articles for Adaptation**
- **Radio Scripts**


What To Do If A Blizzard Traps You
Winter Survival News Package
• Sample proclamation
• Sample proclamation press release
• Winter fires press release
• Kerosene & space heater fact sheet
• Car Care Council fact sheets (3)
• Sample winter survival press release
• Low-income fact sheet
• Newspaper mats
DID YOU KNOW ?
DID YOU KNOW ?

MEDIA PACKET

The statistics gathered by FEMA indicate that deaths and injuries from excessive cold have been increasing steadily in the past few years. The following radio scripts, public service announcements, and newspaper articles have been developed to provide new information on winter hazards for the general public. The information can also be targeted to those groups most likely to suffer from severe winter weather -- the elderly and disadvantaged -- through selective programming and scheduling.

The media is one of the best vehicles your campaign can use to reach those people who are most in need of help. To respond to the needs of specific groups within your community, you should identify these groups, supplement the information provided in the enclosed media packet, and stimulate community programs designed to meet their needs.

Each media packet is designed so you can add local information about community programs directed to your target audience.

Survive Winter

Through Self Help and Helping Others

Federal Emergency Management Agency / National Oceanic and Atmospheric Administration - U.S. Department of Commerce

These fact sheets and backgrounders provide general information on coping with winter hazards. When supplemented with local information, they have a greater impact on the audience.

Materials include:

- Data Fact Sheet
- Sample Proclamation
- Winter Fires Press Release
- Kerosene and Space Heater Fact Sheet
- Car Care Council Fact Sheets (3)
- Sample Winter Survival Press Release
- Newspaper Mats
- Consumer Product Safety Commission Face Sheet

Survive Winter

Through Self Help and Helping Others

Federal Emergency Management Agency / National Oceanic and Atmospheric Administration - U.S. Department of Commerce

FACT SHEET

Data YOU can use in developing your own news releases and articles on surviving winter:

- Autumn 1982 was ushered in officially at 4:46 a.m. EDT September 23. But to many communities in the United States, the temperatures dipped to levels that made this season feel more like the beginning of winter. Records were set south of the Mason-Dixon Line for the coldest September 23 ever in: Chattanooga, Tenn., 40°; Birmingham, Ala., Jackson, Miss., Meridian Miss., and Monroe, La., all 43°; Shreveport, La., 45°; Atlanta, 46°; Montgomery, Ala., and Columbus, Ga., 47°; Tallahassee, Fla.,48°; Baton Rouge, La., 49°; Mobile, Ala., and Houston, both 50°; Pensacola, Fla., 51°; Apalachicola, Fla., 55°; and New Orleans, 59°. And on the first day of Autumn, the first frost of the season coated tiny Valley Head, Ala., where the temperature dipped to 31°. (UPI)

- Intense cold and heavy snowfall last January (1982) alone cost the country about $6 billion in direct dollar losses. This was particularly painful to a national economy already suffering from recession, rising unemployment, high interest rates, foreign competition, a mounting trade deficit, and high energy costs. (NOAA)

- Major U.S. Weather Stations reported that January 1982 was for: the East North Central region, the 4th coldest, 9th wettest January in 88 years; the Central region, the 8th coldest,9th wettest January in 88 years; and the West North Central region, the 8th coldest, 12th wettest January in 88 years. (NOAA)

- A summary of direct impacts of 1982 severe weather reveals:
  - Greater than 350 fatalities
  - Total direct economic losses: $8.2 billion

  (NOAA)

-more-

- There were 41 percent more deaths from excessive cold over the last three decades than from hurricanes, tornadoes, and floods combined. The death rate from excessive cold has increased 50 percent between 1968 and 1978 (National Center for Heath Statistics, U.S. Department of Health and Human Services).

- Solid fuel fires from wood and coal have increased 139 percent between 1977 and 1981, and deaths increased 84 percent in one year alone (FEMA).

- Fatalities resulting from poisoning by gases and vapors during winter months are double that for the rest of the year--improperly installed or defective gas and coal heaters are responsible for many of these fatalities (Metropolitan Life Insurance Co.).

- More than 700 deaths between 1980 and 1981 are directly attributable to suffocation and 68 percent of those during cold weather (National Safety Council).

- Studies demonstrate that there is a significant increase in deaths the week following a major blizzard. Problems of transportation, communication and isolation have made the elderly, infirm, handicapped and poor particularly susceptible to the failures of home heating, inadequate provisions of food and medicine, and emergency transportation (The Center for Disease Control).

- Scientists around the country are looking for temperatures to drop as a result of the April explosion of Mexico's El Chichon volcano, which pumped 20-60 million tons of gas and dust into the stratosphere (Environmental Data and Information Service, NOAA).

- At least 20 people were killed and 300 injured when a snow and ice storm struck the Southeast in February 1982. The storm caused more than $5 million in damage (NOAA).

- More than 35 people were killed and 1,077 were injured during the course of a January 1982 storm in the Pacific Southwest. Damage from snow and flooding cost at least $50 million. (NOAA)

- The winter of 1982-1983 may go on record as one of the worse in the history of the United States. No prediction can be made as to how bad the cold and the snow may be, but economically data indicates that suffering may be intensified for the elderly, the infirm, and the economically disadvantaged.

# # #

SAMPLE WINTER SURVIVAL PROCLAMATION

The signing of the following proclamation by the mayor, county commissioners or governor will lend official support and recognition to the Winter Survival Campaign. The date selected for the proclamation is optional, although one possibililty is the first day of Winter: December 21, 1981.

WHEREAS, emergency preparedness is a function of government dependent upon leadership of the executive officers and efforts of many dedicated volunteers and career civil servants; and

WHEREAS, some recent winters have been extremely severe and resulted in deaths, injuries and extensive property damage; and

WHEREAS, traffic accidents due to snowy or icy road conditions cause many injuries and the loss of life; and

WHEREAS, residential fires related to winter are caused by improperly vented woodburning stoves, unscreened fireplaces, clogged chimneys, unsafe space heaters, and other factors; and

WHEREAS, under the coordination of the Federal Emergency Management Agency a number of federal, state, local and volunteer agencies are attempting to inform and educate the public on steps that should be taken to survive this winter;

WHEREAS, by taking reasonable precautions, the people of _____ can reduce the loss of life and property, plus decrease the effects of winter on our energy resources and our economy:

THEREFORE, I_____, do hereby proclaim _____as WINTER PREPAREDNESS DAY (or WEEK).

FURTHER, I authorize all agencies of our government to provide citizens with appropriate preparedness information for the 1981-82 winter season. I urge all citizens to cooperate wholeheartedly with the emergency management officials in this vital work.

DRAFT PRESS RELEASE

Governor/Mayor/County Commissioner _____(name)_____ today signed a proclamation declaring _____(day/week)_____ Winter Preparedness (Day/Week) in _____(state/city/county)_____. The proclamation was signed in connection with a Winter Survival Campaign which has begun in _____(state/city/county_____.

The proclamation supports the teamwork of government officials from all levels working together to educate state/city/county citizens on the perils of winter. It urges citizen cooperation and calls for the people of ___(state/city/county)___ to take reasonable precautions to reduce the loss of life and property and decrease the effects of winter on the economy.

Campaign activities in _____(state/city/county)_____ include (mention can be made here of civic/community meetings and speaking engagements of local officials concerning winter survival, identifivation of appropriate government office and telephone number at which to seek campaign information, and the availability of informational materials to the public).

"The potential for human suffering and property destruction in this area as the result of a winter is a real one. We are determined to reduce that potential through the joint efforts of government and our citizens," said _____(name)_____.

FEDERAL EMERGENCY MANAGEMENT AGENCY

News

Office of Public Affairs / Washington, DC 20472

For additional information:

Carolyn Perroni
(202) 287-0300

Release No.: 81-84

Release Date:
Wednesday, November 18, 1981

WOODBURNING STOVES, FIREPLACES MAIN FACTORS IN HOME HEATING FIRE INCREASE

WASHINGTON — Woodburning stoves and fireplaces were the main factors in a 32 percent increase in heating fires in one-and two-family dwellings between 1979 and 1980.

According to figures just released by the Federal Emergency Management Agency's (FEMA) U.S. Fire Administration, solid-fuel heating fires — primarily those in fireplaces and woodburning stoves — increased a dramatic 66 percent, while other types of heating fires in these residences increased only about 8 percent for the period. Solid-fuel heating also was responsible for 42 percent of the fire deaths in one- and two-family dwellings in 1980.

FEMA's analysis indicates that improper installation, putting bedding and other combustible materials too close to the fireplace or stove and lack of maintenance — allowing creosote to build up — were the major problems in fires involving woodburning stoves and fireplaces.

To provide needed safety information about these and other winter hazards, FEMA is conducting a drive to promote "winter survival." The agency encourages state and local governments, the fire service, trade groups, industry and businesses to develop winter safety campaigns tailored to their individual communities and provides a kit of resource material for use in these campaigns.

Organizations interested in conducting winter safety campaigns may obtain a resource kit by writing to Winter Survival Kit, Office of Public Affairs, Federal Emergency Management Agency, Washington, D.C. 20472.

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Winter Survival Resource Kit

Federal Emergency Management Agency

KEROSENE AND SPACE-HEATER SAFETY TIPS

Kerosene heaters are gaining popularity now as an alternative to more expensive heat sources and can increase the risk of fire in your home.

If you are using a kerosene heater in your home, be aware of the following safety tips:

- Use only safety listed equipment. Make sure your unit is UL listed.
- USE ONLY THE PROPER FUEL FOR EACH HEATING UNIT. NEVER USE A FUEL NOT DESIGNED FOR THAT UNIT.
- Be sure your fuel-burning heater is properly vented to the outside. Burning kerosene produces deadly fumes. Use an oxygen depletion meter at all times. The Consumer Products Safety Commission recommends one square inch of fresh air opening for each 1,000 BTU's. Open a window when necessary to combat oxygen depletion and carbon monoxide buildup.
- Always store flammable liquids in metal containers outside your home. Never refuel your heater indoors, and be sure to extinguish the heater flame before refueling.
- Always keep a fire extinguisher on hand near your kerosene heater (a Class B extinguisher is used to put out a flammable liquids fire.)
- Always place your heater so that it will sit level and solidly in its base or feet.
- Allow for adequate open areas around your kerosene heater. Place heaters away from loose hanging draperies, towels or other readily combustible materials
- Keep young children away from heaters. Nightgowns, robes and blankets can be sucked in and ignited.

- Follow the regular maintenance schedule for your heater.

- In some jurisdictions, a permit is required to use kerosene-burning heaters. Check with your county government or local fire department to see if restrictions apply to your area.

Remember, portable heaters are designed for spot-heating or as a supplemental heat source. Heaters should not be left unattended. You can make your home more fire-safe by remembering -- and using -- these home heating safety tips.

car care council

FOR FURTHER INFORMATION CONTACT:

Arthur H. Nellen

17000 EXECUTIVE PLAZA, DEARBORN, MICH. 48126 TEL: (313) 336-6926

MAINTENANCE NEGLECT COULD SPARK CAR CRISIS THIS WINTER

Motorists who put off preparing their cars for winter should delay no longer, according to a joint statement from two veteran observers of the automotive service industry.

"Based on the prevailing downturn in the auto repair business, we can assume there are a lot of people out there who have neglected to have their cars tuned in recent months," said John Fobian, American Automobile Association's director of engineering.

"If this trend continues," Fobian declared, "we can expect a rash of 'can't starts' when cold weather arrives.

"A severe cold snap could cause a real crisis," Fobian pointed out, "and there is a limit to how heavily service dealers can staff for peak period emergency road service. The result could be abnormally long waits for starting assistance."

The logical preventive measure is proper attention to electrical and ignition parts which are basic to starting dependability.

Preventive maintenance cannot be delayed indefinitely without paying a penalty, added Car Care Council President Arthur H. Nellen, reporting that nearly half the cooling system hoses in cars on the road now are being replaced on an emergency, rather than a scheduled, basis. This means that car owners are facing inconvenient and sometimes costly repairs because they fail to plan ahead.

Although Americans are driving less this year, this does not necessarily mean that vehicle maintenance can be reduced, Nellen said.

Some components actually deteriorate faster in short-run operation and these can be particularly vulnerable to the ravages of cold-weather driving.

Engine oil is contaminated more quickly in cars subjected to short runs and stop-and-go driving, especially in winter, he said. As a result, these cars should have more frequent oil and filter changes than cars that are driven regularly.

Exhaust systems suffer from limited driving, too, according to Car Care Council. Condensation accumulating in a muffler accelerates the rusting process, especially when the temperature drops.

Also prone to deterioration from the elements whether or not the car is running are windshield wiper blades -- another oft-forgotten component that should always be checked as part of a pre-winter preventive maintenance program.

# # #

FOR FURTHER INFORMATION CONTACT:

Arthur H. Nellen

car care council

17000 EXECUTIVE PLAZA, DEARBORN, MICH. 48126 TEL: (313) 336-6926

TUNE UP AND CHECK UP
BEFORE COLD WEATHER

Car neglect can be expensive, especially when it affects gas mileage. The driver of a car which normally delivers 20 MPG could be losing about $20 per month because he has become lax about preventive maintenance.

This figure is based on driving 1,000 miles per month with gas priced at $1.40 per gallon. According to Car Care Council, the biggest mechanical factor affecting fuel economy is engine condition. A car needing a tune-up may be wasting about 11% of its fuel. This would represent a monthly loss of $7.70.

Another factor is rolling resistance. When underinflated, tires don't roll as easily as they should and it takes more energy to keep the car in motion. If tires are underinflated by four pounds, gas consumption goes up about 8%. That's $5.60 per month.

Rolling resistance due to incorrect wheel alignment also cuts gas mileage. One-quarter inch out of alignment costs about 2% or $1.40.

Misalignment and underinflation can drastically cut tire life, too.

Finally, if the thermostat in the cooling system is missing or stuck in the open position, which would cause the engine to run too cool, gas mileage would suffer another 7% reduction, costing the owner another $4.90. With a sticking choke that figure would be substantially greater.

(more)

It all adds up; in this hypothetical case totaling $19.60, says Car Care Council, who points out that most of the factors listed above become more critical in cold weather. Starting difficulty and engine neglect run hand in hand, for example. Tire inflation pressure decreases when outside air temperature drops, at which time the effects of a stuck thermostat also become more pronounced.

This fall, says Car Care Council, check up, tune-up and save.

# # #

FOR FURTHER INFORMATION CONTACT:

Arthur H. Nellen, Jr.

17000 EXECUTIVE PLAZA, DEARBORN, MICH. 48126 TEL: (313) 336-6926

FOR IMMEDIATE RELEASE

WATCH OUT FOR FROZEN BATTERIES

A cold weather caution has been directed from Car Care Council to users of battery chargers and booster cables. Do not attempt to jump start or charge a frozen battery. A "dead" battery freezes at temperatures below 15 degrees F. In this condition there is added danger of an explosion from sparks near the vent holes. A battery emits explosive hydrogen gas.

To avoid the risk of injury, the Council recommends removing the battery and moving it inside to warm it up before attempting to put the battery back in service.

When connecting a charger, follow these safety precautions:

1) Charge only in a well-vented area.
2) Wear safety goggles for maximum eye protection.
3) Be sure water (electrolyte) is at the proper level. It should cover the plates. If the level is low, add water.
4) Place a damp cloth over the vent caps.
5) Be sure your charger switch is in the "off" position and that the charger is unplugged before connecting or disconnecting it.
6) Make the positive (+) connection first. If you are hooking up your charger with the battery in the car, make the negative connection to a good ground, away from the battery.
7) Do not smoke or light a match when working around a battery.

(more)

When using booster cables, follow the precautions recommended for connecting a battery charger. Be sure your batteries are of the same voltage. Make your connections as follows:

1) Connect the positive (+) cable to the positive post of the "dead" battery.
2) Connect the other end of that cable to the positive post of the booster battery.
3) Connect the other cable to the negative post of the booster battery.
4) Make the final connection to the engine block of the stalled car, away from the battery.
5) Stand back, start the engine and remove the cables in reverse order.

# # #

Sample Press Release

WINTER SURVIVAL CAMPAIGN
LAUNCHED IN (Your Community)

FOR IMMEDIATE RELEASE
CONTACT: (Your Name)
(Your Phone Number)

(Your Community): It is the middle of winter and a snowfall of 6 inches has blanketed your front yard in just 12 hours. The temperature is dropping fast and strong winds are blowing the loose snow into large drifts. Powdery particles are being whipped in such great quantities, that driving visibility is only a few feet. A blizzard is on the way. You are in the midst of the most dramatic and perilous of all winter storms. Winter Weather can turn brutal with surprising swiftness. A winter storm can become a killer... unless you plan ahead.

Every year needless lives and property are lost, and countless people suffer severe hardships due to winter storms that bring extreme cold, freezing rain, floods, ice and snow. In one incident, a blizzard struck one area with such force that 99 people died, almost 5,000 were injured and 336 homes were destroyed. So as not to have a repeat of this devastation, (Your Organization) has begun a community-wide winter survival campaign aimed at alerting local residents to the dangers of harsh winter weather.

The local winter awareness effort is being launched in coordination with a national campaign by the Federal Emergency Management Agency (FEMA), in partnership with the National Oceanic and Atmospheric Administration (NOAA).

(MORE)

WINTER SURVIVAL CAMPAIGN

FEMA urges you to educate yourself and the members of your household on how to get through rough winter weather. Be prepared for isolation in your home, treacherous driving conditions, exposure to freezing temperatures, heart attacks from overexertion, fires from overheated stoves and furnaces, and many more winter emergencies. Check your supply of food, fuel, critical medicines and battery powered equipment before the storm arrives.

(Campaign Spokesperson) I invite you to join (Your Organization) in our goal to save lives and reduce hardships through increased public awareness of winter hazards. Learn how to protect yourself from the problems of winter storms.

Be prepared for the worst and you will survive the best.

Winter Warning: Don't overdo it!

Winter is a trying time — particularly for the elderly and those with a heart condition. Shoveling snow or pushing a snowed-in car is strenuous — even for the hearty.

If you have to exert yourself, do it in short, easy stretches.

For more information on how to survive winter's rigors write:

Office of Public Affairs
National Oceanic and Atmospheric Administration
U.S. Department of Commerce
Washington, DC 20230

A public safety message from the National Oceanic and Atmospheric Administration and the Federal Emergency Management Agency

Winter is a trying time — particularly for the elderly and those with a heart condition. Shoveling snow or pushing a snowed-in car is strenuous — even for the hearty.

If you have to exert yourself, do it in short, easy stretches.

A public safety message from the National Oceanic and Atmospheric Administration and the Federal Emergency Management Agency

U.S. Consumer Product Safety Commission
Washington D.C. 20207

F A C T S H E E T

WOOD AND COAL BURNING HEATING EQUIPMENT

1. Heating equipment, especially wood burning stoves and fireplaces, caused one of every four residential fires in 1981, the Federal Emergency Management Agency reports.

2. Most frequent causes:

   a. Improper installation

      (1) appliance too close to combustibles, such as device too close to walls, fuels, papers, etc.

      (2) improper installation of chimney connector thru combustible wall a major cause.

      (3) venting system (chimney) installed too close to combustible surfaces.

3. CPSC data: Survey of 2,018 households, FY 81:

   a. 92 percent of all solid-fuel burning stoves in use are free standing...this requires a connecting pipe to a chimney...a MAJOR CAUSE OF FIRES WHEN IMPROPERLY INSTALLED.

   b. 63 percent of stoves in use are less than five years old, and one in six less than one year old.

   c. BULK OF STOVES (70 percent) INSTALLED BY CONSUMERS AND ONE HALF NEVER INSPECTED BY A BUILDING OR A FIRE INSPECTOR.

   d. One in four homes has at least one working fireplace - 20 percent of all fireplaces in use are FACTORY BUILT, mostly in newer homes.

   e. One in four working fireplaces and chimneys are NEVER INSPECTED OR CLEANED.

   f. One in 10 stove users had some experience with fire, smoke, or other hazard.

GENERAL POINTS

1. Check with building code or fire inspector concerning whether a permit is needed for installation of stoves.

2. Check with officials regarding clearances of stove to walls...follow building/fire codes and manufacturers instructions..if none, then install at least 36 inches from side walls.

3. Prior to adding a stove or fireplace insert to an existing masonry chimney, have the chimney inspected for deterioration or improper construction.

4. Inspection of masonry chimneys important, particularly in older homes. Many not able to withstand heat generated by newer appliances; many have deteriorated or have accumulated creosote over years.

5. Once appliance has been installed, the installation should be inspected by the code/fire officials.

6. Consumers should be aware of and read labels on stoves prior to purchasing, and refer to care instructions once the appliance installed.

7. Place a stove on a fireproof stove board or other suitable noncombustible insulated material of proper size.

8. Regular inspections of chimney connectors/chimneys for creosote buildup (a tarry substance condensed inside) is important. Suggested twice a month until familiar with rapidity of creosote buildup.

9. Clean chimney/chimney connector as needed as determined by regular inspections for creosote buildup.

10. Consumers should never use single-wall chimney connector pipe as a chimney - use only approved double or triple-walled (or masonry) chimneys.

11. Do not install chimney connector pipe thru a combustible wall without additional thermal protection.

12. Make sure chimney is installed properly and meets all building/fire codes.

13. Keep flammable materials away from heating systems.

14. Do not overfire the stove or fireplace.

15. Do not use flammable liquids to light a fire.

16. Use the proper fuel. Do not burn trash.

17. Provide fresh air.

18. Use noncombustible containers to remove ashes.

SUMMARY POINTS

1. To reduce risks and causes of fires, a combination of the following is needed:

   - improvement of existing standards and codes
   - raise consumer awareness to hazards associated with stoves/fireplaces
   - provide additional training/education/information to retailers, building and fire officials, building contractors

2. Major causes of fires are due to: Improper installation
   Improper use
   Improper maintenance

3. Most of the installations are done by consumers and few are inspected by proper officials - building/fire inspectors.

4. Major problems that need addressing are:

   a. inadequate clearance of appliance and venting system to combustibles - the wall mainly, and

   b. ignition of creosote deposits.

5. If in doubt about own capabilities in installing appliances and cleaning chimneys...get qualified help.

INFORMATION SOURCES TAKEN FROM:

- Final Report - Fire Hazards Associated with Fireplaces, Chimeys, and Accessories, dated December 11, 1981.
- Fact Sheet No. 92, Wood and Coal Burning Heating Stoves, 9/82.
- Fact Sheet No. 44, Fireplaces, 3/81.

Survive Winter

Through Self Help and Helping Others

Federal Emergency Management Agency / National Oceanic and Atmospheric Administration - U.S. Department of Commerce

This series of newspapers articles and accompanying "Did You Know" cartoons should be supplemented with local information, stressing those programs designed to mitigate the hazards discussed. If severe winter weather threatens, encourage your local daily or weekly newspapers to publish them.

Topics include:

- Keep Posted on Weather Conditions
- Winter Survival in the Home
- Winter Survival and Your Health
- Holiday Safety
- Use Alternative Heating Sources Safely
- Winter Survival on the Road

1st of a Series

WINTER SURVIVAL...

Keep Posted on Weather Conditions

Winter weather can kill. Each year, hundreds die from overexertion and exposure, and the incidence of fires caused by wood and other fuel burning stoves has increased steadily over the past few years. You can help your family better survive this winter by keeping these simple safety tips in mind.

First, and most important, keep posted on weather conditions. Your local radio and television stations and Weather Service Radio will keep you informed on area forecasts. Even a few hours' warning may enable you to better cope with severe weather.

Second, understand the terms used by the Weather Service. A winter storm watch means severe weather conditions could affect your area. You should take precautionary measures and continue listening for further advisories. A warning means severe weather is imminent.

Other terms commonly used in winter weather forecasts include:

Blizzard - A combination of cold air, heavy snow, and strong winds creates the most dangerous of all winter storms.

-more-

WINTER SURVIVAL...Keep Posted

Add One

Blizzard warnings are issued when the Weather Service expects a heavy accumulation of snow, together with winds over 35 miles a hour. A severe blizzard warning means that snow, winds over 45 miles an hour, and temperatures under 10 F. are expected.

Snow - When used without a qualifying word, means the snowfall will be steady and is likely to continue for several hours.

Snow Flurries - Snow falling for a short time at intermittent periods. Accumulations are generally small.

Snow Squalls - Brief, intense snowfall accompanied by gusting winds.

Heavy Snow - These warnings usually mean a snowfall of four inches or more in a 12-hour period, or six inches or more in a 24-hour period. (Heavy snow can mean lesser amounts where winter storms are infrequent.)

Freezing Rain or Drizzle - This forecast is given when expected rain is likely to freeze as soon as it strikes the ground, putting a hazardous coating of ice on roads and sidewalks.

Sleet - Consists of frozen raindrops (ice pellets).

Travelers' advisories are issued to indicate dangerous driving conditions due to snow, sleet, or freezing rain.

-more-

Often, specific routes and highways are named. Listen to your local forecasts for travel advisories if you are planning a trip by car, especially during the holiday season when many people are on the road.

# # #

Note: This article is based on information provided by the Federal Emergency Management Agency and the National Oceanographic and Atmospheric Administration. For more information, contact FEMA's Office of Public Affairs, (Attention: Winter Awareness), Washington, D.C. 20472.

2nd in a Series

WINTER SURVIVAL...

In the Home

Snow flurries can suddenly turn into a vicious winter storm, causing us to measure a snowfall in feet instead of inches. Forced home isolation can then be a very real possibility, but certain preparations will ease the hardships you and your family could suffer. Here are some tips to help you at home during severe winter weather.

Two necessities you cannot do without are food and heat. Stock an emergency supply of food. Even if you are within walking distance of a grocery store, their supplies may dwindle if roads are closed to supply trucks. Include food that requires no cooking or refrigeration, or have emergency cooking facilities in case of power failure. Natural foods allow the body to produce its own heat efficiently, especially quick-energy foods like raisins and other dried fruits.

Try to keep an adequate supply of fuel in your home. Regular supplies may be limited by storm conditions, so use it sparingly. Conserve fuel by keeping the house cooler than usual and temporarily closing off unnecessary rooms.

Power lines are downed easily during winter storms. Have a flashlight, candles and matches, a battery-powered radio, and extra batteries.

Severe winter weather does not necessarily involve a storm. Extremely low temperatures can cause problems, too.

- more -

WINTER SURVIVAL...In the Home

Add One

In an emergency, an alternative heating source would keep at least one room warm enough to live in. This could be a coal-, wood-, or oil-burning stove, fireplace, or space heater. However, use emergency heating equipment carefully. Proper ventilation is essential, and use extra caution to prevent fire. Keep a fire extinguisher handy. In a storm, help from the fire department may be delayed or unavailable. Learn how to handle alternative heating sources safely; a local dealer can help you.

If your heat goes out, keep water pipes from freezing by wrapping them in pipe insulation or newspapers covered with plastic to keep out moisture. Let each faucet drip a little to avoid freezing. Know how to shut off the water coming into the house -- as a last resort, you may have to shut off the main valve to keep the pipes from bursting.

If the pipes do freeze, remove the insulation and wrap them with rags. Open every faucet all the way, and pour hot water over the pipes.

# # #

Note: This article is based on information provided by the Federal Emergency Managment Agency and the National Oceanographic and Atmospheric Administration. For more information, contact FEMA's Office of Public Affairs, (Attention: Winter Awareness), Washington, D.C. 20472.

3rd in a Series

WINTER SURVIVAL...

And Your Health

Each year cold weather claims more lives than hurricanes, tornadoes, floods, or any other weather phenomenon. To protect you and your family, keep the following safety tips in mind during the coming winter season.

Stay indoors unless it is absolutely necessary to go out. If you do go outside, avoid overexertion. Cold weather alone puts an added strain on the heart. If you add unaccustomed exercise, such as shoveling snow, pushing a car, or even walking too fast or too far, you risk heart attack or stroke.

Wear the proper clothing. Whether outdoors or inside with little or no heat, several layers of loose-fitting, light-weight warm clothing are better than one thick, heavy garment. Trapped air warmed by body heat will circulate between the layers to keep you warmer. The layers can be removed as needed to prevent perspiring and subsequent chills. Outer clothes should be tightly woven and water repellant.

Keep your clothes dry. Wet clothing loses all insulating value and should be changed as quickly as possible.

Remember sleeping caps? Old customs usually had practical origins. Your body loses a good percentage of its heat through your head so whether you are outdoors or in an unheated home, day or night, wearing a wool hat will keep you warmer. Also, wear mittens instead of gloves -- they allow your fingers to touch, and your own body heat will keep your hands warmer.

- more -

WINTER SURVIVAL...And Your Health

Add One

Frostbite and Hypothermia

Watch for frostbite and other results of cold-weather exposure. Frostbite causes numbness and white or blue-tinted skin, most commonly in fingers, toes, ears, and the nose. If frostbite symptoms appear, do NOT rub with snow or ice -- this will worsen the condition.

Hypothermia is another condition caused by prolonged exposure to the cold. It is marked primarily by an abnormally low internal body temperature -- typically 95^0F (35^0C) or below.

While extended exposure to the cold can harm anyone, it is particularly hazardous to the elderly. Nearly half of all hypothermia victims are over 65.

Hypothermia can be prevented. Dressing warmly during the day and while sleeping, eating enough of the proper foods, and staying as active as possible are good ways to maintain body heat. If possible older persons should not be alone for very long or should ask friends or neighbors to look in on them once or twice a day, particulary in severe cold weather. In some communities, telephone check-in or personal visit services are available.

In addition, some diseases and certain drugs can increase susceptibility to hypothermia. Check with your doctor if you are taking medication to treat anxiety, depression, or nausea. Such drugs sometimes influence body temperature regulations.

-more-

the base of the tree in water and check it daily. (Evaporation can be slowed by adding beer to the water.) Dispose of your tree soon after the holidays, before it drys out. But never dispose of your tree by burning it indoors in a fireplace or furnace.

If you buy a artifical tree, be sure it is flame-resistant. And remember, these materials only retard fire; ultimately they will burn. In addition, the fumes generated by a smoldering artifical tree can be just as deadly as an actual fire. It is best to use the same care with an artifical tree as with a live tree.

Place your tree away from fireplaces, radiators, and other sources of heat.

When making out your Christmas shopping list, consider a gift of life -- give a smoke detector.

# # #

NOTE: This article is based on information provided by the Federal Emergency Management Agency. For more information, contact FEMA's Office of Public Affairs, (Attention: Winter Awareness), Washington, D.C. 20472

5th in a Series

WINTER SURVIVAL...

Holiday Safety

Each year thousands of families mark Christmas as a time of tragedy instead of joy due to deadly fires. The real tragedy is that most of these fires can be prevented. By following a few common sense tips, your family can enjoy a happy and safe holiday season.

Electrical fires occur throughout the year, but during the holidays, they increase sharply. Be sure your outlets and circuits are not overloaded. Decorative lights are often used year after year; check carefully for frayed and worn cords and replace or discard them. Also, use care when placing decorations which use bulbs, especially in windows where curtains or drapes can ignite easily.

Candles are very popular during the holiday season. These should be carefully placed as well. Never leave burning candles unattended. While a charming tradition, burning candles on a Christmas tree is very dangerous, even if you stay in the room. Trees dry out quickly and can ignite before you are able to take action.

A live tree should be bought as fresh as possible. Hold the tree upright and thump the base on the ground a few times; if the needles fall off, the tree has begun to dry. Before you mount your tree in a stand, cut an inch or two off the bottom of the trunk so it will absorb water more easily. Always keep

- more -

WINTER SURVIVAL...And Your Health

Add Two

Several signs can aid in identifying possible hypothermia victims. Symptoms include a drop in body temperature below 95^0F; confusion, disorientation, or drowsiness; lack of coordination and sluggishness; low blood pressure and slow or irregular heartbeat; slurred speech; and slow, shallow breathing.

To treat frostbite or hypothermia, get the victim into dry clothing and a warm bed, blankets, or sleeping bag immediately. Use warm towels, a heating pad, or a hot water bottle -- these should be warm to the touch, but not hot. Concentrate on the trunk of the body, the shoulders, chest, and stomach. Keep the heat low and feet raised to improve circulation of blood to the head. You can also give the person warm drinks. Do not massage or rub any affected areas, and NEVER give alcohol, sedatives, tranquilizers, or pain killers -- they only slow body processes even more.

If symptoms are extreme, seek professional medical help immediately.

# # #

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6th in a Series

WINTER SURVIVAL...

Use Alternative Heating Sources Safely

Energy shortages and high costs have forced many Americans to opt for alternative sources of heating. Old pot-bellied and Franklin stoves are being unearthed from basements and attics and restored to burn coal or wood. Space heaters, oil and kerosene stoves, and even modified fireplaces are being used more and more to supplement permanent home heating systems.

As the use of these relatively inexpensive but effective heating sources increases, so does the risk of fire. Residential fires cause the most deaths and injuries, and these fires increase during the cold weather months due to the use of room heating devices. You can protect yourself and your family against a tragic fire by following a few simple home safety tips.

First, regardless of your heating source, your home should have an installed, working smoke detector. Over half of the 7,800 fire deaths in this country each year can be prevented by the early warning a smoke detector provides.

There are basic safety measures to remember when using any type of room or area heating device. Don't use fuel-burning appliances without proper ventilation to the outside. For example, burning kerosene, coal, or propane produces deadly fumes. Never burn charcoal inside. Flues, vents, and

-more-

stovepipes do not provide enough ventilation to handle the amount of carbon monoxide fumes produced by burning charcoal.

Be sure your heating device is clean and in good working condition. A dirty or malfunctioning heater is a critical fire hazard. Also, use the proper fuel for your heater; never substitute one fuel for anther.

There should be adequate space around each heater or stove, and the floor and nearby walls should be properly insulated. Surrounding surfaces should not become too hot to touch.

Have a fire extinguisher handy and know how to use it. There are different types of extinguishers for different types of fires. Pressurized water/soda acid extinguishers (Class A) are generally used on paper, cloth, wood, and rubbish fires, but are ineffective in fighting flammable liquid (Class B) or electrical (Class C) fires. A Class ABC extinguisher can be used on all three types of fires. It is inexpensive and can be purchased wherever fire extinguishers are sold.

Use a screen around stoves or space heaters with an open flame. Keep the unit away from walls, furniture, and other flammable items such as draperies, towels, and clothes. Nighgowns, robes, and blankets can be caught on a heater and ignited, so be careful to keep young children away from heaters.

- more -

Your heating equipment should have a safety listing. If you choose an oil or electric heater, look for the UL label; for a gas appliance, look for the AGA or UL label. And follow the regular maintenance schedule.

There are also special safety tips to remember when using specific heating sources. When using fireplaces or woodburning stoves, be sure they are cleaned every year and are kept in good working order. All types of wood leave a dangerous flammable residue in the chimney called creosote, which could ignite later. Never use a flammable liquid to start or quicken a fire. Keep a metal or glass screen in front of your fireplace; flying sparks and embers can start fires. Glass screens keep the warm air in the room from escaping up the chimney. Be sure that flammable fabrics or decorations do not hang down in front of the open flame. And when you go to bed, be sure the fire is out. Never close the damper with hot ashes in the grate. Burning coals consume oxygen and give off poisonous carbon monoxide.

For other types of room heaters, such as kerosene, propane, or oil burners and electric heaters, remember to follow these simple safety rules. Keep kerosene and other highly flammable liquids stored in metal containers outside the home, and keep

them out of the reach of children. Don't overfill the unit. As the fuel is used, it expands and could overflow and ignite. Also, never fill your heater while it is burning.

Kerosene, gas, and oil heaters consume oxygen, so always keep a window or door open slightly for fresh air.

When using electric heaters, be sure the wiring in your home is adequate. Do not overload circuits and outlets. Avoid using electric heaters in bathrooms, and never touch one when wet.

For most people, these sources of heat only supplement their regular central furnace system. Whether you use coal, oil, gas, or electric heat, it is important to have your furnace checked regularly by a qualified person. In fact, be sure all parts of the system -- flues, chimmeys, and insulation near the furnace -- are clean, intact, and in good condition. And leave furnace repairs to experts; home repairs can be costly in the long run and are often dangerous.

Keep trash and combustibles away from the furnace. Don't store hot ashes in the home; move them outside into a metal container immediately.

Finally, contact your local fire department if you have any concerns regarding local code requirements.

WINTER SURVIVAL...Alternative Heating Sources

Add Four

By following these safety tips, you can protect your family against an unnecessary tragedy this winter.

# # #

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4th in a Series

WINTER SURVIVAL...

On the Road

No one drives during bad winter weather unless they must. However, business or holiday plans often make winter traveling necessary. The following tips on traveling in winter weather may make your trip safer.

Plan your trip carefully, listening to weather reports and travelers' advisories and keeping an alternate route in mind. Let someone know where you are going and what time you plan to arrive. Travel by daylight and use major highways if possible. Try not to travel alone.

Be sure your car is in good running order and properly serviced. Make certain your tires are in good condition. Snow tires or chains are best for winter driving, but all-season radials are adequate if you live in an area with light to moderate snowfall. Before you start out, clean snow and ice off all parts of your car -- windows, hood, roof, trunk and lights. Snow left on the car could affect visibility once your start driving.

Keep your gas tank as full as possible, especially if you are unfamiliar with the route you are traveling or are entering open country and also to prevent gas line freeze-up.

Even if you restrict your winter driving to short, local trips, certain supplies can help in an emergency. You should always keep basic items such as a windshield scraper, battery booster cables, a tow chain or rope, a bag of sand or gravel,

-more-

WINTER SURVIVAL...On the Road

Add One

and a flashlight in your car. For longer trips, you may want to add a transistor radio (with extra batteries); a first aid kit; road maps; some non-perishable foods such as nuts, dried fruit, or candy; matches and candles; blankets; and two or more large coffee cans (for sanitary purposes and to burn candles for heat).

Don't overdress when driving. Even on short trips, your clothing should be loose-fitting and comfortable. Heavy clothing should be removed after the car has warmed up. But pull over to the side of the road instead of struggling out of heavy clothing while driving.

If you should get caught on the road during a winter storm, keep calm. Give some indication you are in trouble -- turn on your flashing lights, raise the hood, or tie a cloth from an antenna or door handle.

Stay in the car. Do not try to walk from the car unless you can see a shelter within a reasonable distance; disorientation comes quickly during a blowing snowstorm.

For heat, turn on the car engine for brief periods. To avoid deadly carbon monoxide poisoning, always leave a downwind window open slightly. Also, make sure the exhaust pipe is clear of snow when the engine is running.

-more-

WINTER SURVIVAL...On the Road

Add Two

Exercise from time to time by clapping your hands and moving your arms and legs. Do not stay in one position too long, but do not overexert yourself by shoveling or trying to push the car.

Leave the dome light on at night as a signal to rescuers. If more than one person is in the car, sleep in shifts.

Other tips to keep in mind:

- Don't drive while tired
- Always use your seatbelt
- Never warm up a vehicle in an enclosed area

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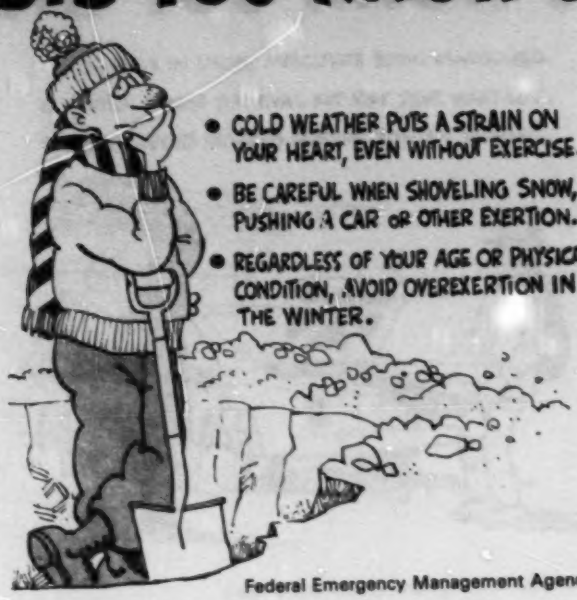
DID YOU KNOW ?



- COLD WEATHER PUTS A STRAIN ON YOUR HEART, EVEN WITHOUT EXERCISE.
- BE CAREFUL WHEN SHOVELING SNOW, PUSHING A CAR OR OTHER EXERTION.
- REGARDLESS OF YOUR AGE OR PHYSICAL CONDITION, AVOID OVEREXERTION IN THE WINTER.

Federal Emergency Management Agency

DID YOU KNOW ?

IN WINTER STORMS YOU SHOULD KNOW HOW TO USE YOUR EMERGENCY HEATING AND LIGHTING EQUIPMENT SAFELY TO PREVENT FIRES...

- NEVER USE FUELS NOT DESIGNED FOR YOUR HEATING UNIT
- PROPER VENTILATION IS ESSENTIAL
- BURNING CHARCOAL GIVES OFF DEADLY AMOUNTS OF CARBON MONOXIDE

Federal Emergency Management Agency

DID YOU KNOW ?

IF ISOLATED BY A BLIZZARD, YOUR FAMILY WILL NEED SURVIVAL SUPPLIES.

WHAT WOULD YOU NEED TO BE SELF-SUFFICIENT FOR A FEW DAYS WITHOUT POWER AND HEAT?

Federal Emergency Management Agency

DID YOU KNOW ?

A "BLIZZARD WARNING" IS ISSUED WHEN CONSIDERABLE SNOW IS EXPECTED WITH WINDS OF AT LEAST 35 MILES PER HOUR.

A FEW HOURS OF WARNING CAN BE THE KEY TO PREPAREDNESS AND WINTER SURVIVAL.

Federal Emergency Management Agency

WS - Series 1
November 1981

DID YOU KNOW ?

IF YOU DRIVE IN SNOW, ANTICIPATE BEING MAROONED. A WINTER STORM SURVIVAL KIT MAY SAVE YOUR LIFE. THE WISE AVOID DRIVING DURING WINTER STORMS.

Federal Emergency Management Agency

ws

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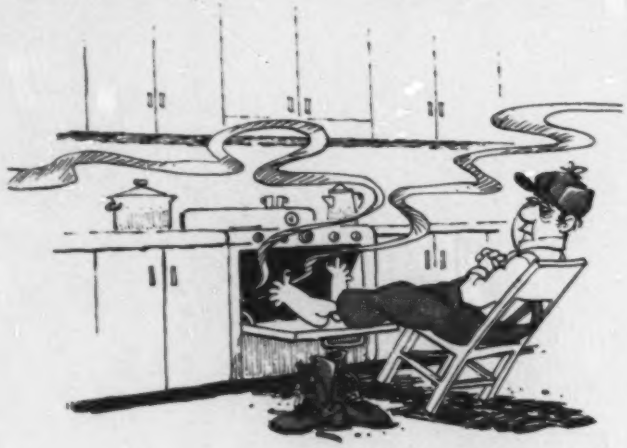

Federal Emergency Management Agency

ws

DID YOU KNOW ?

IF YOUR PIPES FREEZE, DON'T TRY TO THAW THEM WITH A BLOW TORCH OR OPEN FLAME. USE HOT WATER OR RISK A FIRE.

Federal Emergency Management Agency

ws

WS - Series 1
November 1981

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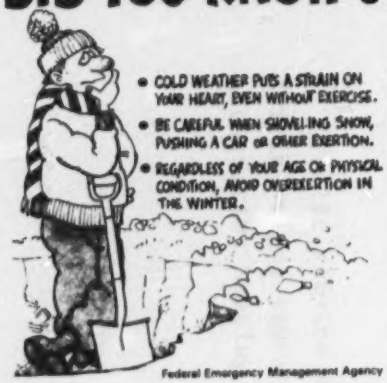

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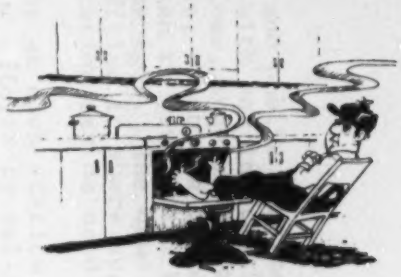

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Federal Emergency Management Agency

WS - Series 1
November 1981

Survive Winter

Through Self Help and Helping Others

Federal Emergency Management Agency / National Oceanic and Atmospheric Administration - U.S. Department of Commerce

The following radio scripts and public service announcements have been updated with new information in those areas causing the greatest problems, such as woodburning stoves and hypothermia. These materials, which can be reproduced on your own masthead, should be taken to your local radio stations and discussed with the program manager. The name of the sponsoring organization can be filled in where appropriate, or the name of each broadcasting station may be used.

Keep a record of your contact at each station; when severe weather threatens, reinforce your efforts by calling each station and reminding them that immediate airing of these scrips and PSAs may save lives.

The radio scripts can also be used as the basis for a television talk show -- you should discuss this possibility with your local television station Program Director. While talking with television people, you may wish to remind them of the two winter films FEMA has distributed. These are available through FEMA headquarters and regional offices.

Radio script topics include:

- Preparing Your Car For Winter
- What To Do When Trapped in A Car
- Keeping Warm in A Cold House
- Winter Fire Prevention
- Avoiding Home Fires In Winter

Public service announcement topics cover fire safety, driving tips, exposure and health tips, home preparedness, and alternative heating sources.

First in 5-Part Series

PREPARING YOUR CAR FOR WINTER

ANNCR: Having a comfortable and safe winter is a matter of planning. Your family's safety could depend on how well your car is prepared for the cold months. _____ of _____ has answers to questions you might have on getting your car ready for winter. He is with us today as part of the Winter Survival Campaign sponsored by the Federal Emergency Management Agency, the National Oceanic and Atmospheric Administration and _____.

_____, what are some of the preparations a motorist should make when winter approaches?

GUEST: First be sure your car is in good condition. Carry a winter storm kit of emergency supplies in your car when traveling long distances or in snow country. Keep the gas tank as full as possible to keep out water and maintain a safety reserve in case you become stranded.

ANNCR: What parts of a vehicle require special attention?

GUEST: You can add to the list based on your knowledge of your car, but here are a few points to consider:

-ignition system
-fuel system
-battery

-lights

-exhaust

-brakes

-wiper blades

-tires

ANNCR: What kind of tires should you have?

GUEST: Vehicles should have snow tires or chains if driven in snow country.

In areas where there is moderate snowfall, all-weather tires may be suitable. Remember, it's now against the law in most places to get stuck on a snow emergency route without snow tires or chains.

It's safer not drive in snow at all.

ANNCR: But what happens if you do take all the precautions and still get caught on the open road in a blizzard -- marooned miles away from everything?

GUEST: That's when you'll need that winter storm kit. It could save your life.

ANNCR: What's in a "winter storm" kit?

GUEST: To keep warm in a snowed-in car, you'll want: blankets or sleeping bags for each person or a stack of newspapers that can be used for insulation; winter clothes -- wool caps, mittens, overshoes; a first aid kit with a pocket knife; flashlight with extra batteries; candles and matches; small sack of sand or gravel and a shovel; and a tool kit, including battery booster cables.

ANNCR: What about a radio?

GUEST: Of course a radio would be helpful, and your emergency kit should contain a portable if your car doesn't have a radio installed. Also a citizens band, or CB, radio can be very useful in an emergency.

ANNCR: Are there any other items that you would recommend for a survival kit?

GUEST: You can develop your own list of kit items to meet your specific needs. For instance, you may need an extra pair of glasses or a specific medicine. Also, two empty three-pound coffee cans with lids (one for sanitary purposes and the other to burn candles for heat and light). A catalytic heater could be useful. Whatever heat source you use, leave a window open slightly for air circulation. Carbon monoxide poisoning can happen without the victim being aware of the danger.

ANNCR: Thank you _____. In the days ahead, we'll have more tips on now you can better survive this winter.

Second in 5-Part Series

WHAT TO DO WHEN TRAPPED IN A CAR

ANNCR: Most deaths in winter storms happen in and around cars in non-collision situations. If you're driving in snow country, you should know some simple rules about surviving in a stranded car. As part of the Winter Survival Campaign, we are pleased to talk today with _____,
of _____. _____, what is the first rule of survival if trapped -- or marooned -- in a car during a winter storm?

GUEST: Stay in the car and don't panic. Do NOT get out to seek shelter unless you can actually see a safe haven from the car, and you have warm clothing, and you are in good enough physical condition to make the walk. At night, or if it is still snowing, stay in your car. Disorientation comes quickly in a blizzard, and you can easily become lost a short distance from the car.
Remember, you are more likely to be found in your car than if you are out wandering around.

ANNCR: If you stay in the car, you could be there for a long time. How are you going to stay warm?

GUEST: You can run the engine and the heater for short periods. But remember there is a danger of carbon monoxide poisoning. When you run the engine, open the window slightly on the downwind side of the car. This will give you the fresh air you need.
Obviously, your exhaust system should be in good condition. Also, check the exhaust pipe periodically. If snow blocks the exhaust, it can produce the same fatal results as a leaky muffler.

ANNCR: How about exercise to keep warm?

GUEST: You can exercise by clapping hands and moving your arms and legs. But don't overdo exercise; it warms you but also increases body heat loss.
Don't overexert yourself. Too much exercise, such as shoveling snow or attempting to push the car out of a drift, may cause a heart attack...even for persons in good physical condition.

ANNCR: Why the danger of a heart attack for someone in good health?

GUEST: Medical authorities tell us that the cold weather puts extra strain on the heart. So with even a little exertion, there is an increased possibility of heart attack or stroke.

ANNCR: What if you run out of gas and can no longer run the engine and heater to stay warm?

GUEST: In an emergency, you can use newspapers as you would use a blanket; or the rubber floor mats can be draped around you to help conserve body heat.

ANNCR: What other points are there to remember about survival in a snow-bound car?

GUEST: If someone is with you, take turns keeping watch.
If alone, try to stay awake.
At night, turn on the dome light so search crews can spot your car.
Remember to stay in your car...and don't panic.

ANNCR: Driving in bad weather can be dangerous, but if you keep these safety tips in mind, you could increase your chances for survival if you get caught in a storm on the road. A Winter Survival Campaign is being conducted by the Federal Emergency Management Agency, the National Oceanic Atmospheric Administration and _____. For more information, contact _____. Thank you _____for the good advice.

Third in 5-Part Series

KEEPING WARM IN A COLD HOUSE

ANNCR: When severe winter weather hits, power failures are common. Keeping warm in a cold house can be difficult -- especially for young children or the elderly. But a little planning and preparation can make it easier. With us is _____, of _____, with tips on how to stay warm when a blizzard strikes. _____, what are the most important things to know?

GUEST: First, know how to dress and what to eat. Dress warmly in several layers of lighter-weight warm clothing rather than a single heavy garment. Layers trap insulating air which is warmed by your body's heat. Perspiration and subsequent chill can be prevented by removing layers as needed.
People are usually careful to dress warmly in cold weather, but keep in mind that the only material with insulating properties -- even when wet -- is wool.

ANNCR: Is it true that your body loses three-quarters of its heat through the head?

GUEST: That's what the experts say. It's recommended that you wear a wool hat, even while sleeping. Also, use several light-weight blankets rather than one heavy one.

ANNCR: You said that eating is important, too. Why does what you eat make a difference in whether you are hot or cold?

GUEST: Since the body produces its own heat, it's very important that you eat properly to stay warm. Well-balanced meals are important, but that may not be easy without power for cooking. That's why we recommend you stock a supply of quick-energy foods that don't need to be cooked. Foods that help you keep warm include raisins, honey, dried fruits, nuts, chocolate, and cheese. If you have an emergency means of cooking, you obviously have more choices.

ANNCR: Aside from warm clothing and food, what else can I do at home to prepare for a winter emergency?

GUEST: It would help to insulate your house -- make it airtight. Caulk and weatherstrip doors and windows. Install storm windows or cover them with plastic sheets. If you can, insulate the floor or walls of your attic.

ANNCR: Insulation may help save me money during the winter by conserving energy, but it won't help me that much if my furnace quits during a blizzard. What then?

GUEST: It's a good idea to have emergency heating equipment that can be used to warm at least one room. Close off the rooms you don't need.

If you use a space heater for the one room, play it safe -- use only the recommended fuel. Never start or quicken a fire with gas or kerosene. And be sure the room is ventilated.

A fireplace or a woodburning stove can really help in an emergency. But, again, be careful of fire. Realize that the fire department may not be able to respond quickly, if at all.

ANNCR: That's all good common-sense advice. This station has been participating in the Winter Survival Campaign with the Federal Emergency Management Agency, the National Oceanic and Atmospheric Administration and _____. Thank you, _____, for your help.

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Fourth in 5-Part Series

WINTER FIRE PREVENTION

ANNCR: Rising fuel prices and other costs have drawn many of us back to woodburning stoves. As the use of these stoves increases, so do the incidents of house fires. With us to provide some Winter Survival advice is_____ of_____
. _____, are woodburning stoves safe?

GUEST: Basically, yes. Woodburning stoves are safe if they are installed and used correctly. First, stoves and fireplaces must be properly vented. The burning wood produces deadly amounts of carbon monoxide which must be vented to the outside with the smoke. The stove and its pipes must have adequate clearance on all sides. Surrounding surfaces should not be too hot to touch.

ANNCR: So proper installation is the first rule of wood stove safety?

GUEST: Yes, but you also must use it properly. Never use gasoline or other flammable liquids to start or quicken the fire. If you use man-made logs, follow the directions on the package. Don't break a man-made log apart to hasten the ignition. Don't use excessive amounts of paper to build a roaring fire.

ANNCR: Is that because too hot a fire can ignite the soot in the chimney?

GUEST: Exactly. You can burn down your house with a chimney fire. So if you have a fireplace or a woodburning stove, it's a good idea to clean your chimney periodically.

ANNCR: Is it dangerous to go to bed with a fire still burning in the fireplace or the woodburning stove?

GUEST: It can be dangerous if you don't have a metal screen or glass to keep flying embers from starting a fire. Also never close your damper while the ashes in the fireplace are still hot. A closed damper can help hot ashes build up heat to the point where a fire could reignite while you sleep. Leave the damper open until the fire is completely out.

ANNCR: If you lose power and your furnace stops, can you keep the house warm with one of these small stoves?

GUEST: A fuel burning stove would not necessarily keep the entire house warm, but you could stay fairly comfortable by staying in one room and closing off those you don't need.

Blankets hung over the windows and doors at night also help keep the one room warm. And the kids can sleep in front of the fire in their sleeping bags. It may not be as warm as you like, but you can survive for several days of emergency conditions with a woodburning stove.

ANNCR: Good advice. This program has been conducted in support of the Winter Survival Campaign being sponsored by the Federal Emergency Management Agency, the National Oceanic and Atmospheric Administration and _____. We thank _____for helping us with this public service

###

Fifth in 5-Part Series

AVOIDING HOME FIRES IN WINTER

ANNCR: During the winter, house fires increase dramatically. Most of these can be prevented by following a few common-sense safety tips. With us today is _____ of_____._____, why are there so many fires in the winter?

GUEST: The winter season brings its own unique set of fire hazards. Often, winter fires are caused by space heaters, heating stoves, or other devices intended to heat a relatively small area on a temporary or emergency basis. In fact, from 19 to 19 , fires caused by solid fuel stoves have increased over 80 percent. In addition, the holidays are also a time when fires are more frequent.

ANNCR: Do you have any recommendations on how we can reduce home fires?

GUEST: A smoke detector is the one, single device that has the most potential for saving lives in home fires. And smoke detectors are affordable -- ranging in price from $15 to $20.

ANNCR: Isn't knowing what to do in a fire important?

GUEST: It's vital. Each family member should know how to escape from every room of the house if a fire starts. Your family should know the emergency exits in your home, and you should meet in a predesignated place outside to be sure everyone got out. But you still need to be alerted to the fact that a fire exists. This is why a smoke detector is so important.

ANNCR: It seems that self-reliance is very important to winter survival.

GUEST: Exactly. In a blizzard, for instance, roads may be blocked by snow, and it may take much longer than usual for the fire department to reach your house. It's a good idea to keep a fire extinguisher handy. If you can stop a small fire before it spreads, you could save property and even lives. Check with your local fire department on what type extinguisher is best for your home.

While we're on this subject, let me suggest that if you have a fire hydrant outside your home, keep it free of snow. Shovel the snow away so fire fighters can easily find the hydrant.

ANNCR: Thank you, _____, for that good advice. If any of our listeners have questions or need advice about home fire safety, they are urged to contact the local fire department.

###

:10 PSA--WINTER SURVIVAL: Avoid Fires in Winter

Home fires occur more often in the winter. Use extra precaution during this season. Follow directions when using space heaters and woodburning stoves -- and install a smoke detector. This advice from _____.

# # #

:10 PSA--WINTER SURVIVAL: Don't Drive

When a blizzard strikes...don't drive. If you do, be sure your car is in good condition and you have snow tires or chains. This advice from _____.

# # #

:10 PSA--WINTER SURVIVAL: Working Outside

If you must go outside during a winter storm, avoid overexertion, dress warmly, and watch for frostbite and hypothermia. This advice from _____.

# # #

:10 PSA--WINTER SURVIVAL: Home Preparedness

Prepare for the winter storm season...insulate your home and have some type of safe, emergency heat source for at least one room. This advice from _____.

# # #

:10 PSA--WINTER SURVIVAL: Ask a Fire Fighter

If you have any questions about the installation, maintenance, or operation of your wood stove, why not ask a fire fighter. For more information call (number). This advice from _____.

# # #

:10 PSA--WINTER SURVIVAL: Winter Car Kits

Be ready for a blizzard...keep an emergency survival kit in your car. Carry blankets, a shovel, sand or gravel, and candles and matches. This advice from _____.

# # #

:20 PSA--WINTER SURVIVAL: A Cold House

If your heat goes out during a winter storm, there are ways to keep warm. Dress in several layers of warm clothing, and wear a wool cap. Keep an emergency supply of non-perishable foods on hand, and eat well-balanced meals so your body can produce its own heat. Close off rooms in the house you don't need. Sleep under several light-weight blankets instead of one heavy one. This advice from _____.

# # #

:20 PSA--WINTER SURVIVAL: Working Outside

If you must work outside during a blizzard, take it easy. Cold weather itself--without physical exertion--puts an extra strain on your heart. Dress warmly but comfortably...watch for signs of frostbite and hypothermia...avoid alcohol...and change out of wet clothing as quickly as possible. Get help on the big jobs. This advice from _____.

# # #

:20 PSA--WINTER SURVIVAL: Treatment for Exposure

Signs of overexposure to winter weather include uncontrollable shivering, slurred speech, and drowsiness. If someone shows these symptoms, get that person into dry clothing and a warm bed. Concentrate warmth on the trunk of the body. Give the person warm drinks, but not alcohol. If symptoms are extreme, call for medical assistance immediately. This advice from _____.

# # #

:20 PSA--WINTER SURVIVAL: Clean Your Chimney

If you haven't cleaned your wood stove or fireplace chimney recently, don't put it off any longer. Hire a professional chimney sweep, or if you don't mind getting a little dirty, buy chimney brushes and rods, and clean it yourself. For more information, call (number). The (local department) urges you to Warm Up To Wood Safely. This advice from _____.

# # #

:20 PSA--WINTER SURVIVAL: Carbon Monoxide

A fireplace or fuel-burning stove must be properly vented to carry heat, smoke, and fumes to the outside. Never burn charcoal inside--it gives off deadly amounts of carbon monoxide. Open flames use up oxygen, and fresh air is necessary to prevent suffocation...keep the room ventilated. Contact your local fire department if you have questions on winter fire safety. This advice from _____.

# # #

:30 PSA--WINTER SURVIVAL: Safety on the Road

When winter storms strike, don't drive. If you must travel, plan your trip carefully, listening to travelers' advisories and keeping an alternate route in mind. Carry an emergency supply kit in your car including blankets, extra clothing, a shovel and sand or gravel, matches and candles, and quick-energy foods. Keep your gas tank as full as possible in case you get straneded and to prevent gas line freeze-up. And be sure to let someone know your travel plans. This advice from _____.

# # #

:30 PSA--WINTER SURVIVAL: Trapped in a Car

If a blizzard traps you while driving, it's usually safest to stay in the car. Unless you can see shelter from the car, don't leave--you can easily get lost in the storm. Run the engine for short periods to keep warm, and open a window slightly. Be sure the exhaust pipe is not blocked with snow. Avoid overexertion and exposure. Turn on the dome light at night to make your car more visible to rescue crews. If possible, take turns sleeping and watching for help. If you're alone, try to stay awake...and don't panic. This advice from _____.

# # #

:30 PSA--WINTER SURVIVAL: Physical Exertion

More people die in winter cold waves than in hurricanes, tornadoes, or any other weather phenomenon. Cold weather itself--without any exercise--puts an extra strain on your heart. If you add heavy exertion--like shoveling snow, pushing a car, or even walking fast--you are risking a heart attack or a stroke. Also, watch for signs of hypothermia, especially in elderly people living alone. This advice from _____.

# # #

:30 PSA--WINTER SURVIVAL: Fire Safety Tips

Pot-bellied stoves, fireplaces, and other alternate sources of heat are great during winter weather, but make certain they are used safely. It's important to have your stove installed correctly, and use only the fuel designed for your heater. Never use gasoline or other flammable liquids to start or quicken a fire. Keep a screen around an open flame to prevent flying sparks, and don't close the damper while hot ashes are still in the grate. Contact your local fire department if you have any questions about winter fire safety. This advice from _____.

# # #

:30 PSA--WINTER SURVIVAL: Wood Stove Safety

Heating your home this winter with a wood stove can be economical and efficient..if you're careful. Be sure your stove is installed correctly and follow the manufacturer's instructions for use. Never burn charcoal in your stove -- it gives off deadly amount of carbon monoxide. Buy a stove that is listed by a recognized testing laboratory, and remember to inspect and clean your chimney regularly. The (local department) wants your help in reducing the increasing number of wood stove related fires. This advice from _____.

# # #

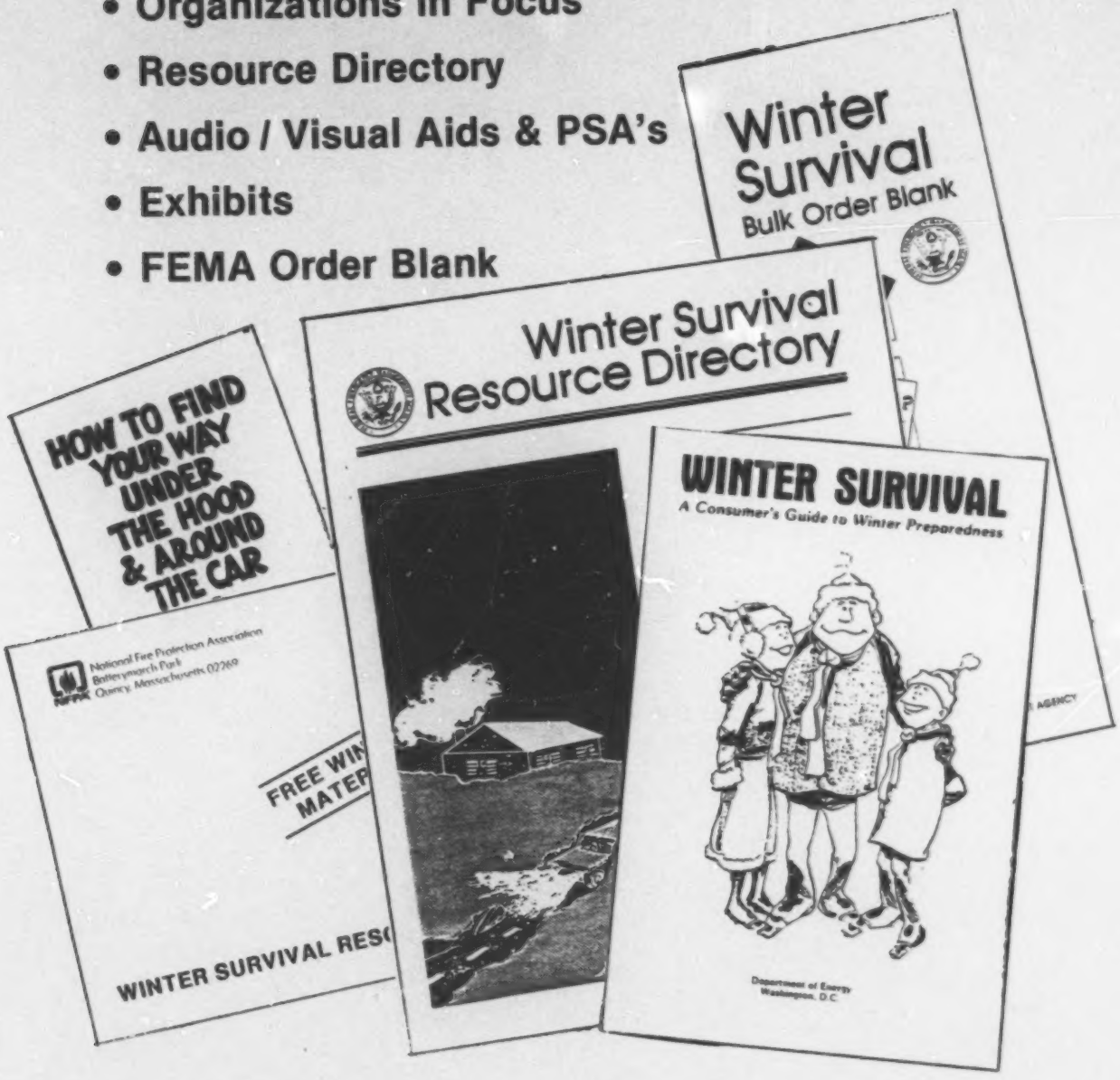
:30 PSA--WINTER SURVIVAL: A Cold House

If your heat goes out during a winter storm, there are ways to keep warm. Close off all rooms you don't need and use only safe sources of heat, like wood and other fuel-burning stoves. Dress in several layers of warm clothing, and wear a cap--most of your body heat is lost through your head. Sleep under several light-weight blankets instead of a single heavy one. Eat well-balanced meals and quick-energy foods so your body can produce its own heat. This advice from _____.

# # #

V. RESOURCES

- Organizations in Focus
- Resource Directory
- Audio / Visual Aids & PSA's
- Exhibits
- FEMA Order Blank



RESOURCES

To supplement FEMA publications and those materials contributed by your campaign sponsors, we have compiled a Resource Directory of organizations offering publications and other materials at little or no cost. Also included in this section is Organizations in Focus, a listing of organizations actively working on winter survival public awareness projects and a description of their programs.

Descriptions of audio-visual aids and public service announcements are provided. These can be supplemented by local information.

Also included in this section is an Order Blank to order FEMA publications.

Survive Winter

Through Self Help and Helping Others

Federal Emergency Management Agency / National Oceanic and Atmospheric Administration - U.S. Department of Commerce

O R G A N I Z A T I O N S I N F O C U S

Over the past year, the partnership among federal, state and local governments, non-profit organizations, and industries to work together to develop safety campaigns and materials that will help save lives has grown.

Among these organizations which are now developing Survive Winter programs to help the citizens of this country weather this winter are:

- The National Safety Council
- The National Association of Home Builders
- AETNA
- The International Society of Fire Service Instructors
- The Consumer Product Safety Commission

We (NOAA and FEMA) are also continuing in our efforts to provide you with resources that will help you develop your own campaigns.

Part of those efforts include the development of a supplement for your Resource Workbook on what these organizations are doing and how you can use or transfer their ideas to your program.

This supplement will be mailed to you as soon as we have completed our research on these programs and others of which we have heard. If you know of some organization that is making a contribution to Survive Winter, and would like to see it as part of this supplement, send this information to:

Stacey Webber
Office of Public Affairs
Federal Emergency Management Agency
Washington, D.C. 20472

Survive Winter

Through Self Help and Helping Others

Federal Emergency Management Agency / National Oceanic and Atmospheric Administration - U.S. Department of Commerce

SURVIVE WINTER RESOURCE MATERIALS

I. DRIVING SAFETY

1. The Accident Book: Shell Answer Book #15

Shell Answer Books
P.O. Box 61609
Houston, Texas 77208
(713) 241-6161

The Accident Book: Shell Answer Book #15 attempts to answer a variety of questions regarding accident prevention and accident follow-up. It lists suggestions for a survival kit, first aid procedures, and accident/emergency behavior. (Free.)

2. Accident Facts

National Safety Council
444 N. Michigan Avenue
Chicago, Illinois 60611
(312) 527-4800

Accident Facts is a booklet addressing a variety of accident-related information about occupational, automobile, industrial, and residential injuries. Specific statistical data, graphic charts, and winter-related breakdowns are provided in an easy-to-read format. (Cost is $10.75.)

3. The Best Way to Safe Winter Driving

National Safety Council
444 N. Michigan Avenue
Chicago, Illinois 60611
(312) 527-4800

Please send self-addressed, stamped evelope. Single copies FREE.

The Best Way to Safe Winter Driving is a six-page pamphlet which offers hints for the best way to protect your eyes during winter and how to ready your car for storm hazards, how to avoid colds, how to move a snow-stuck car, and how to stop on ice. Numerous other tips all included for coping with a variety of winter problems.

4. Driver's Warning

National Safety Council
444 N. Michigan Avenue
Chicago, Illinois 60611
(312) 527-4800

Please send self-addressed, stamped envelope. Single copies FREE.

Drivers' Warning is a six-page pamphlet designed to help repair automobiles for inclement weather conditions. It provides driving tips for icy roads, weather charts for tire traction, and a checklist for battery, tires, brakes, and safety gear. It is a concise, on-target leaflet.

5. How to Deal with Motor Vehicle Emergencies

Virginia Department of Transportation
Safety
300 Turner Road
Richmond, Virginia 23225
(804) 276-9600

The booklet, How to Deal with Motor Vehicle Emergencies, is a 20-page publication dealing with crash avoidance, stopping on the highway, brake failure, and throttle sticking. In addition to discussing a number of other possible hazards, the booklet addresses driving through water, heavy rain, or snow. It also offers some additional winter driving tips.

6. Holiday Safety....Facts and Trivia

National Safety Council
444 N. Michigan Avenue
Chicago, Illinois 60611
Please send self-addressed, stamped envelope. Single copies FREE.

7. How to Find Your Way Under the Hood & Around the Car

Car Care Council
17000 Executive Plaza
Dearborn, Michigan 48126
(313) 336-6926
No copies, photostats only.

Photostats for this 4-panel pamphlet of "quick and easy" guidance to preventive maintenance can be obtained by writing to the Car Care Council. Cost for photostats is $5.00.

8. The Ice Monster Strikes Again

Iowa Department of Transportation
Office of Safety Programs
5628 N.W. 2nd Avenue
Des Moines, Iowa 50313
(515) 281-5254

The Ice Monster Strikes Again is a concise leaflet providing winter driving tips. It offers six specific ways to prevent accidents due to ice, listing the causes, symptoms, and recovery techniques.

9. "If Spring Is Here, Can Winter Be Far Behind?" Journal of American Insurance, Winter 1979-1980

Alliance of American
Insurers
20 N. Wacker Drive
Chicago, Illinois 60606
(312) 558-3700

"If Spring Is Here, Can Winter Be Far Behind?", is a three-page article discussing automobile preparation for inclement weather. Tips offered by the National Safety Council are listed as well as a special insert about tire traction and special driving precautions.

10. Steps to Blizzard Survival in a Motor Vehicle

Iowa Department of Transportation
Office of Safety Programs
5628 N.W. 2nd Avenue
Des Moines, Iowa 50313
(515) 281-5254

This flyer gives specific advice for drivers who are stuck in snow or are stalled in a blizzard. It also itemizes suggestions for a mini survival kit to be kept in the vehicle.

11. Survival in the Winter Storm

Army Training and Audiovisual Support Center
DDCP 20-286

Survival in the Winter Storm was prepared for television use to inform the public about dangers frequented during winter months in the home or on the highway. It also provides valuable information for people who live in normally warm areas who are confronted by unexpected blizzards.

For information on the Center nearest you, contact the FEMA Regional Office serving your state follows at the end of this directory.

12. Weather Driving

Virginia Department of Transportation
Safety
300 Turner Road
Richmond, Virginia 23225
(804) 276-9600

Weather Driving is a fold-out flyer which addresses safe driving techniques for rain, ice, and snow conditions. In a concise way, it offers suggestions for accident avoidance and is most helpful for winter survival.

13. Winter Driving Booklet

Wyoming Disaster and Civil Defense
Division
P.O. Box 1709
Cheyenne, Wyoming 82003
(307) 777-7566

This 20 page booklet deals with the problems of driving in winter and provides common sense approaches for making travel in winter weather easier on yourself. Single copies free of charge.

14. Winter Survival: A Consumer's Guide to Winter Preparedness

U.S. Department of Energy
CP-20 Mail Stop IE
Forrestal Building
Washington, D.C. 20588
(202) 252-6173
(Single copies only)

15. Winter Truck Driving Safety

National Safety Council
444 N. Michigan Avenue
Chicago, Illinois 60611
(312) 527-4800
Please send self-addressed, stamped envelope. Single copies FREE.

Winter Truck Driving Safety is a 13-page booklet which addresses particular problems that truck drivers have in the winter. It offers specific information regarding traction, steering, jackknifing and stopping. It also gives a pretip checklist essential for winter travel.

II. ELDERLY

1. Age Page: Heat, Cold and Being Old

National Institute on the Aging
Building 31, Room 5C35
Bethesda, Maryland 20205
(301) 496-2947

Age Page: Heat, Cold and Being Old is a two-page article explaining a variety of winter-weather related hazards for the elderly. Accidental hypothermia, heat stroke, and heat exhaustion are analyzed. If offers advice for contacting assistance through government-funded programs for low-income families and local action agencies.

2. A Winter Hazard for the Old: Accidental Hypothermia

National Institute on the Aging
Building 31, Room 5C35
Bethesda, Maryland 20205
(301) 496-2947

A Winter Hazard for the Old: Accidental Hypothermia is a 12-page booklet addressing the topic of accidential hypothermia, a drop in deep body temperature which can be deadly. The article identifies possible vulnerable people, explains protection procedures, lists symptomatic clues, and suggests treatment potentials.

3. How Weather and Climate Affect You

Public Affairs Committee, Inc.
381 Park Avenue, South
New York, New York 10016
(212) 683-4331

How Weather and Climate Affect You is a 28-page booklet addressing the relationship between conditions and health disorders, personality modifications, crime rates, and mental illness. If offers a number of suggestions for how to "weather condition" yourself. (1-24 copies $.50 each; 25-99 copies $.40 each; 100-499 copies $.35 each)

III. FIRE

1. Apartment Safety Checklist (FP 23A) and Home Safety Checklist (FP 23)

American Insurance Association
Engineering & Safety Service
85 John Street
New York, New York 10038
(212) 669-0400

The leaflets Apartment Safety Checklist and Home Safety Checklist offer an itemized listing of questions regarding use of matches, electrical hazards, housekeeping hazards, heating and cooking problems, and the use of fire equipment. ($4.50 per 100 copies; order by number listed after title.)

2. Consumer Product Safety and You

National Safety Council
444 N. Michigan Avenue
Chicago, Illinois 60611
(312) 527-4800

Please send self-addressed, stamped envelope. Single copies FREE.

Consumer Product Safety and You is a leaflet alerting the public about thermal, electrical, mechanical, chemical, and falling hazards. It concisely offers suggestions for how to prevent product-related injuries.

3. Evaluation of Smoke Detectors in Homes, Interim Report

International Association of Fire Chiefs Foundation
1329 18th St. N.W.
Washington, D.C. 20036
(202) 463-7305

This booklet is the result of a study conducted by the International Association of Fire Chiefs Foundation to examine how smoke detectors are performing when fire occurs in a residential property. This booklet is designed to help justify smoke detector legislation and provide information to be used in public education programs. This booklet may be obtained for a minimum handling and postage cost of $.30 each.

4. How to Survive a Hotel Fire

National Safety Council
444 N. Michigan Avenue
Chicago, Illinois 60611
(312) 527-4800
Please send self-addressed, stamped envelope. Single copies FREE.

5. Public Fire Safety Education, Case Studies and Cooperation

International Association of Fire Chiefs Foundation
1329 18th St. N.W.
Washington, D.C. 20036
(202) 463-7305

This publication emphasizes public fire safety education programs that result from public and private sector cooperation and that use alternate sources of funding.

6. Resource Directory of Audio-Visual Proucts

International Society of Fire Service Instructors
20 Main Street
Ashland, Mass. 01721
(617) 881-5800

This 64-page directory lists the fire safety audio-visual products available from the International Society of Fire Service Instructors. There is no charge for this directory.

7. Smoke Detector Media Kit

Fire Prevention Bureau
609 Public Safety Bldg.
511 South State Street
Syracuse, New York 13202

This kit addresses the use of smoke detectors and includes the basic elements of a local public service campaign such as television and radio public service announcements, a slide program and manual, and posters. Duplication cost for each kit is $55.00. Please send no check until billed.

8. What You Should Know About Smoke Detectors

International Association of Fire Chiefs Foundation
1329 18th St. N.W.
Washington, D.C. 463-7305

This 8-page booklet compiled by the U.S. Consumer Product Safety Commission and printed in cooperation with the International Association of Fire Chiefs' Foundation, is designed to answer questions about smoke detectors and to help the public in selection, installation, and maintenance. It also stresses the importance of maintenance and monthly tests, items presently being overlooked by the majority of detector owners. Cost: $.50 each or bulk rate of $30 per hundred.

IV. FIRST AID

1. Accident Facts

National Safety Council
444 N. Michigan Avenue
Chicago, Illinois 60611
(312) 527-4800
Cost: $10.75

2. Cold Weather Injury

Iowa Department of Transportation
Office of Safety Programs
5628 N.W. 2nd Avenue
Des Moines, Iowa 50313
(515) 281-5254

This flyer offers concerning hypothermia and frostbite. It lists symptoms, treatment, and types of advisable clothing.

3. Winter Survival: A Consumer's Guide to Winter Preparedness

U.S. Department of Energy
CP-20 Mail Stop IE
Forrestal Building
Washington, D.C. 20588
(202) 252-6173

Please send self addressed, stamped envelope. Single copies FREE.

V. HOLIDAY

1. Holiday Safety....Facts and Trivia

National Safety Council
444 N. Michigan Avenue
Chicago, Illinois 60611
(312) 527-4800

Please send self addressed envelope. Single copies FREE.

Holiday....Facts and Trivia is a six-page pamphlet offering ideas for safe holiday driving, Christmas tree selection, party planning, and cautious shopping procedures. It's a helpful winter reminder.

2. Holiday Safety List

National Safety Council
444 N. Michigan Avenue
Chicago, Illinois 60611
(312) 527-4800

Please send self addressed, stamped envelope. Single copies FREE.

VI. HOME HEATING

1. Alternative Methods of Heating Seminars

Seminars deal with safety precautions when using alternate methods of heating such as wood stoves, kerosene heaters, coal stoves, and other space heaters. Seminars are geared to the interests of retailers and the fire service. Upcoming seminars will be held in Albany, New York, November 6-7; Indianapolis, Indiana, November 20-21, Dover, Delaware, December 11-12. Registration fee is $70.00 for members and $85.00 for non-members. For more information on these seminars as well as seminars on other areas of fire safety contact:

International Society of Fire Service Instructors
20 Main Street
Ashland, Mass. 01721

2. Chimney Fires

Fire Information, Research, Education Center
Agricultural Extension Service
Continuing Educatin and Extension
University of Minnesota

Chimney Fires is three-page article authored by Frank E. Oberg which talks about the increase in wood-burning and solid-fuel heating hazards and subsequent fires. The article details information necessary for fire department control of such disasters. It provides basic procedures for extinguishing chimney fires. (Send self addressed, stamped envelope; single copies $.25)

3. Coal and Wood Burning Stove Safety/Fact Sheet #92

Electric Space Heater Safety/Fact Sheet #34

U.S. Consumer Product Safety Commission
Washington, D.C. 20207
(800) 492-CPSC (outside Maryland)
(800) 492-8363 (Maryland)

4. Farm and Home Safety

Agricultural Engineering Department
University of Maryland
College Park, Maryland 20742
(301) 454-3901

Farm and Home Safety is a newsletter which stresses safety and alertness of fire prevention. The September 1981 issue particularly discusses kerosene heaters and hints for their proper usage.

5. Heating with Solid Fuels (FP26)

American Insurance Association
Engineering & Safety Service
85 John Street
New York, New York 10038
(212) 669-0400

Heating with Solid Fuels is a leaflet addressing the proper selection, installation, operation, and maintenance of solid-fuel burning appliances. With the increased use of wood-burning stoves and similar heating equipment, this brochure is especially pertinent. ($6.50 per 100, or $50.00 per 1,000.)

6. Kerosene Heaters - An Important Fire Safety Message

International Society of Fire Service Instructors
20 Main Street
Ashland, Mass. 01721
(617) 881-5800

Information about the proper use and maintenance of Kerosene heaters is provided in slide set or filmstrip form. Slide set is $55.00 plus $5.00 shipping; filmstrip is $45.00 plus $5.00 shipping.

7. Save Energy: Save Money

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
(202) 738-3238

Save Energy: Save Money is a 48-page booklet which offers helpful winter survival information. It looks at the most common and severe problems in heating and offers some low-cost solutions. Items for discussion include storm windows; sealing foundations and floors; use of curtains; maintenance of furnaces, stoves, and fireplaces; and insulation techniques. In addition to other important information, the booklet provides an emergency checklist an annotated bibliography. ($4.75 each; stock number 059-000-0002-1)

8. Winter Survival: A Consumer's Guide to Winter Preparedness

U.S. Department of Energy
CP-20 Mail Stop IE
Forrestal Building
Washington, D.C. 20588
(202) 252-6173

Winter Survival: A Consumer's Guide to Winter Preparedness is a 17-page illustrated booklet identifying a number of winter survival problems and offering preventive tips. It deals with home winterization, health precautions, light and heat problems, exposure remedies, and safe driving aides. It also tips on contacts for information and help. (Single copies only)

9. Wood Stoves: Don't Lose Lives Saving Energy

Alliance of American Insurers
20 N. Wacker Drive
Chicago, Illinois 60606
(312) 558-3700

The leaflet, Wood Stoves: Don't Lose Lives Saving Energy, discusses the proper installation of wood stoves in order to prevent hazards. With the increased popularity of wood stoves during winter, this is an especially pertinent publication. ($2.00 per 100 copies.)

10. Wood Stove Safety

Insurance Information Institute
Publications Service Center
110 Williams Street
New York, New York 10038

Wood Stove Safety is an 8-page folder containing tips on the selection, installation and use of wood-burning stoves. (Single copies free)

11. Wood: Nature's Housewarming Gift. Use It Wisely.

Wood Heating Alliance
Susan O'Rourke
111 E. Wacker Drive
Chicago, Illinois 60601
(312) 644-6610

Wood: Nature's Housewarming Gift. Use It Wisely is a 16-page booklet describing how consumers can use wood safely. It includes information on how to select firewood, chose a wood-burning appliance and install it, and information on chimneys, chimney fires, and how to extinguish them. For a free copy, send a self-addressed, stamped envelope marked "Use It Wisely" to the above address.

VII. HOME INSULATING

The publications listed below are available from:

Mineral Insulation Manufactuers
Association, Inc.
382 Springfield Avenue
Summitt, New Jersey 07901
(201) 277-1550

1. Going to Insulate? Do it Right. Hire a Pro. This booklet describes how to select and what to expect from insulation contractor doing blowing wool insulations. Ask for publication #BW-25. No charge for single copy requests.

2. How to Insulate Your Home Yourself. This 8-page information booklet discusses methods of insulating your home. Ask for publication #HT-200C. No charge for single copy requests.

3. How to Save Money by Insulating Your Home. This 23 page booklet gives practical instructions and advice on doing it yourself or hiring a contractor. Ask for publication #RI500E, cost is $.50 each.

4. Insulate Your Attic Now. Practical guidance on insulating the attics of residential and light frame constructions. Ask for publication #AI200, cost is $.45 each.

5. Loose Fill Mineral Fiber This booklet covers the methods for installing loose-fill mineral fiber in residential and light frame constructions. Ask for the publication by title, cost is $.50 each.

6. Mineral Fiber Batts and Blankets. This booklet contains standards for installation concentrating on the latest methods for installing batts and blankets in residential and light frame constructions. Ask for publication by title, cost is $.50 each.

VIII. STORMS

1. Accident Facts

National Safety Council
444 N. Michigan Avenue
Chicago, Illinois 60611
(312) 527-4800
(Cost is $10.75)

2. Lightning Protection for Home, Farm and Family

Lightning Protection Institute
48 North Ayer Street
Harvard, Illinois 60033

Lightning Protection for Home, Farm and Family is a 15-page booklet explaining that lightning is the greatest natural destroyer of property. It defines lightning, cites examples of hazards, and provides 11 elements of lightning protection. This weather-linked devastator is thoroughly defined and analyzed in this leaflet.

3. Lightning Risk Evaluation Guide

Lightning Protection Institute
48 North Ayer Street
Harvard, Illinois 60033
(815) 943-7211

Lightning Risk Evaluation Guide is a four-page pamphlet indexing structural information regarding lightning protection. It was specifically designed to meet the requests of architects and engineers.

4. Winter Storms

Army Training and Audiovisual Support Center
DDCP-20-295

Winter Storms is a documentary film report on the disastrous Winter of 1978. The film shows how emergency management on state, local, and federal levels met and dealt with some major crises.

For information on the Center nearest you, contact the FEMA Regional Office serving your state. List follows this directory.

IX. MENTAL HEALTH

1. How Weather and Climate Affect You

Public Affairs Committee, Inc.
381 Park Avenue, South
New York, New York 10016
(212) 683-4331

X. SPANISH RESOURCES

DOE Technical Information Center
P.O. Box 62
Oak Ridge, Tennesse 37380
(615) 576-5454

1. Energia: A Bajo Costo o Gratis. This pamphlet discusses tips for using energy at a low cost. Hints include ideas for hot water conservation in showers, in laundry rooms, and in hot water tanks. It includes fireplace maintenance and heating and air conditioning upkeep. (Free, DOE Code 7049.)

2. Consejos Para Ahorrar Energia. This booklet teaches people how to save energy inside and outside their homes. Tips include how to insulate your home properly, how to check air conditioning, heating, and electrical units and how to save energy in kitchen, bathroom, and laundry room. Illustrations accompany these suggestions for Spanish-speaking people. (Free, DOE Code 86-99.)

3. Ellos la Agradeceran el Ahorraa de Energia
(They Will Thank You For Conserving Energy)
Poster (DOE Code 342)

4. La Hormiga de la Energia
(Activities with Energy Ant)
This is a Spanish coloring book for children. (DOE Code 322)

III. FIRE ADDENDUM

The following publications on a fire-safe winter survival are available from:

National Fire Protection Association
Battermarch Park
Quincy, Massachusetts 02269

1. Winter Fire Safety Poster. H-29 A warm family scene. $3/25.
2. Christmas Checklist. G-120 A flyer full of safety tips for holidays $3/100.
3. Save Home Energy the Fire Safe Way. G-125 A pamphlet covering alternative heating -- an overview for the homeowner on safe heating practices. 8 pages. $7/100.
4. Home Heating Fact Sheet. G-139 All about wood stoves. $5/100.
5. Fire Prevention All Over the Home. G-8B A graphic, room to room depiction of how to perform fire safely in each room. $7/100.

Survive Winter

Through Self Help and Helping Others

Federal Emergency Management Agency / National Oceanic and Atmospheric Administration - U.S. Department of Commerce

TO: Campaign Coordinators

SUBJECT: FEMA Regional Offices

NEED GUIDANCE ON DEVELOPING YOUR "SURVIVE WINTER" PROGRAM?

HAVE QUESTIONS YOU NEED ANSWERED ON THIS PROGRAM?

CALL YOUR REGIONAL OFFICES OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR HELP. THEIR ADDRESSES AND PHONE NUMBERS ARE:

- REGION I (Boston)
  442 J.W. McCormack, POCH
  Boston, MA 02109

  (617) 223-4741

- REGION II (New York)
  26 Federal Plaza
  New York, NY 10278

  (212) 264-8980

- REGION III (Philadelphia)
  Curtis Bldg., 7th Floor
  6th & Walnut Streets
  Philadelphia, PA 19106

  (215) 597-9416

- REGION IV (Atlanta)
  Gulf Oil Bldg., Suite 664
  1375 Peachtree Street, N.E.
  Atlanta, GA 30309

  (404) 881-2400

- REGION VI (Dallas)
  Federal Regional Center
  Room 206
  Denton, TX 76201

  (817) 387-5811

- REGION VII (Kansas City)
  Old Federal Office Bldg.
  Room 300
  Kansas City, MO 64106

  (816) 374-5912

- REGION VIII (Denver)
  Federal Regional Center
  Bldg. 710
  Denver, CO 80225

  (303) 234-6542

- REGION IX (San Francisco)
  Bldg. 105
  Presidio
  San Franciso, CA 94129

  (415) 556-8794

REGION V (Chicago)
300 South Wacker Drive
(24th Floor)
Chicago, IL 60606

(312) 353-1500

REGION X (Seattle)
Federal Regional Center
Bothell, WA 98011

(206) 481-8800

* * * * *

*Areas covered by these regional offices are:

REGION I: Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island

REGION II: New York, New Jersey, Virgin Islands, Puerto Rico

REGION III: Pennsylvania, Delaware, Maryland, West Virginia, Virginia, District of Columbia

REGION IV: Kentucky, North Carolina, South Carolina, Tennessee, Mississippi, Georgia, Alabama, Florida

REGION V: Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio

REGION VI: Texas, Louisiana, Arkansas, Oklahoma, New Mexico

REGION VII: Nebraska, Iowa, Kansas, Missouri

REGION VIII: Montana, North Dakota, South Dakota, Wyoming, Utah, Colorado

REGION IX: California, Arizona, Nevada, Hawaii

REGION X: Washington, Oregon, Idaho, Alaska

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S U R V I V E W I N T E R A U D I O/ V I S U A L A I D S

TV SPOTS

Additional resource materials available for your use in developing your campaign include a 2" videotape of four (4): 30 second TV public service announcements (PSAs) which address winter hazards encountered by the citizens in your community.

The four PSAs address:

- "DRIVING HAZARDS"
- "WATCH YOUR STEP"
- "FIREPLACE HAZARDS"
- "WOOD STOVE HAZARDS"

WINTER FILM FOOTAGE

Two winter films also are available for TV use, exhibits, or local meetings and presentations:

- "SURVIVAL IN THE WINTER STORM" (DDCP 20-286), 27 minutes, designed to inform the public of the dangers inherent in severe winter conditions and how they can prepare for them in the home or on the highway.
- "WINTER STORMS" (DDCP 20-295), 27:30, an informative documentary report on the disastrous Winter of '78, ranging from the great New England and Midwestern blizzards to the floods and mudslides of California.

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NOTE: To request these materials, write to the Office of Public Affairs, Audio/Visual Section, Federal Emergency Management Agency, Washington, D.C. 20472.

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S U R V I V E W I N T E R E X H I B I T S

The FEMA Office of Public Affairs operates an exhibits lending program to organizations.

Two exhibits feature winter survival. Each unit consists of a nomadic, portable exhibit frame, plus 12 plastic panels which hook onto the frame. The exhibits are 10'X8' when completed.

The Survive Winter background of the exhibits features a snow-covered car on a residential street and serves as a colorful backdrop for conventions and major meetings.

For information on borrowing the exhibit, contact:

The Office of Public Affairs
Federal Emergency Management Agency
Washington, D.C. 20472.

Survive Winter

Through Self Help

and Helping Others

Bulk Order Blank

WINTER SURVIVAL CAMPAIGN MATERIALS LIST

NAME _____ TITLE _____

ORGANIZATION _____

ADDRESS _____ CITY & STATE _____ ZIP _____

Office Phone: _____

Federal Emergency Management Agency

SURVIVE WINTER BULK MATERIALS 1982 ORDER FORM

NEED SOME TO GET YOUR CAMPAIGN STARTED?

USE OURS, FREE.

Product		Quantity
Can Your Home Pass the Winter Survival Test? (limit of 500 to a request)	FEMA-28	_____
Winter Watch for Kids Poster (limit of 500 to a request)	Poster #5	_____
Survive Winter Coloring Book (limit of 500 to a request)	FEMA-26	_____
Christmas Tree Hanger on Tree Safety & Smoke Detectors (limit of 500 to a request)	FEMA-24 FEMA-25 (Spanish)	_____ _____
Survive Winter Wisely (elderly) (For Those Who've Seen More Winters Than They Care to Remember) (limit of 500 to a request)	FEMA-27	_____
Survive Winter Poster (limit of 500 to a request)	Poster #4	_____
Winter Storms Leaflet (limit of 1,000 to a request)	L-96	_____
Winter Fires Leaflet (limit of 1,000 to a request)	L-97	_____
Disaster Driving Leaflet (limit of 1,000 to a request)	L-116	_____

To Order, Send This Form To:

Federal Emergency Management Agency
Office of Public Affairs
Survive Winter '82
Washington, D.C. 20472

Please allow four weeks for delivery.

*U.S. GOVERNMENT PRINTING OFFICE : 1982 0-365-059/99